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THE INSTITUTE OF ECONOMICS
INVESTIGATIONS IN AGRICULTURAL ECONOMICS

AMERICAN AGRICULTURE
AND THE
EUROPEAN MARKET

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AMERICAN AGRICULTURE
AND THE
EUROPEAN MARKET

BY
EDWIN G. NOURSE

WITH THE AID OF THE COUNCIL AND
STAFF OF THE INSTITUTE OF ECONOMICS

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DIRECTOR'S PREFACE

Although the World War was a temporary boon to the American farmer, the ensuing years of readjustment have proved disastrous—particularly to the growers of grain and live stock. The continuing depression of agriculture has been ascribed to many causes, and no end of relief measures have been proposed. Simple restoratives have been tried in the balance and found wanting; political medicine men have fostered vain hopes of legislative magic; farm organizations have advertised the farmer's distress and have proclaimed that in union there is strength; and sundry market and financial reforms have been launched as part of a "program of action." Thus far, however, neither faith nor organization has succeeded in removing the mountains that block the farmers' road to prosperity.

The failure of those most concerned to find a solution of the agricultural problem is due to no paucity of statistical or other data. The United States Department of Agriculture has been diligent in gathering information and has maintained official observers in those areas where conditions and activities have the most important bearing on the fortunes of our agriculture. The United States Department of Commerce has contributed further information, particularly on the distributive side,

supplementing it with much valuable data on general business conditions. But the very wealth and volume of this material and its minute and detailed character tend to bewilder the observer and to confuse his vision with the million tiny cross-currents of the moment, whereas he needs to have revealed the underlying economic forces that control not only the American but the world agricultural situation. This, the Institute of Economics undertakes to do in the present volume.

The investigation attempts to reveal the development and present position of American agriculture as affected by the growth and present status of European markets and the expansion and present position of competing producing areas. The book does not present a working program for the American farmer in the readjustment period in which we are already involved. It attacks merely the one question: What is the real condition confronting American agriculture so far as the European market is concerned? Until this question is definitely answered, we shall make little progress in effecting a solution of present farm problems. Other studies of the Institute now in progress will be directly concerned with these problems of agricultural readjustment.

H. G. Moulton,
Director.

Washington, D. C.,
April 22, 1924.

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E. G. Nourse.

Washington, D. C.,
April, 1924.

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AMERICAN AGRICULTURE AND THE EUROPEAN MARKET

INTRODUCTION

The American farmer has long been a significant and striking international figure. To be sure, he has been clad in the rough garments of the toiler rather than in the fine raiment of the diplomat. He has sat upon the iron seat of his sulky plow or self-binder rather than in the mahogany swivel chair of the international trader or banker. But, notwithstanding his obscure position and his failure even to realize the far-reaching importance of his own performance, the American farmer has played as vital a part in the development of modern industrialism as have these other characters who stand more brilliantly in the spotlight of public attention. He has been no less important than they in the evolution of the international economic organization which modern industrialism implies and has become deeply involved in the intimate life and work of the people of many nations.

Whether the German factory worker should eat black bread or white has depended in part on the hardihood of the American pioneer and on the skilful

farm management of his son or grandson.[1] The textile hand in Lancashire who wanted low-priced bacon with his breakfast was more concerned than he perhaps realized in the Iowa farmer's ability to utilize labor-saving machinery in his corn field or the number of pigs he could raise from the average litter. Whether the peasant of Italy or the coolie of Asia should be better or worse supplied with sturdy cotton fabrics was affected strongly by what the planter and the cropper did on the plantations of our South.

The world was not slow to discover how large a dependence it could place on our farmers for food supplies and clothing materials. Thereupon it went about piling up industrial cities and ordering the domestic habits of its people on the basis of that dependence. A wonderful new land was given to agriculture in America during the nineteenth century. Had it not been so swiftly opened up, had it not been so industriously and skilfully developed by our farmers, particularly in the latter half of the century, the rapid and dazzling rise of modern industrial civilization would not have been made possible. This has been the essence of European dependence on the American farm.

But this is only half the story. Dependence has been mutual. While the European city dweller has been dependent on our farmers, our farmers in turn

[1] Even though the German's wheat might have been grown in Russia, it was brought within the reach of his purse by reason of the fact that American wheat was so fully taking care of the needs of the British market.

have been in large measure dependent on this industrial world and these overseas markets and these international transportation and banking systems to provide an always ready market in which to exchange farm surplus for the goods which the farmers did not themselves produce. As we have pushed up the productivity of our agriculture, the volume of these nonagricultural goods for the farmer's use and enjoyment has also grown. Rural America has become accustomed to a standard of living seldom if ever vouchsafed to farming populations. Often, however, the manner in which this welfare depended on foreign markets and smoothly running exchanges has been overlooked by farmer folk. When wheat was sold at the local elevator or hogs to the local live-stock buyer or cotton at the local gin or general store, the seller has been much inclined to think no farther than this local sale or at most the primary market that lay just a little way beyond. He was likely to complain against this local trader or perhaps berate the miller, the beef trust, or the cotton exchange when prices were unsatisfactory.

But the man who goes into the markets of the world must become a business man of the world. His standing or falling will be influenced by banking conditions in London, the state of employment in Essen, the movement of trade along the Mediterranean, and crop yields in lands with which he enters into competition. He can not ride his industry as an irresponsible passenger, but must use a navigator's skill to make winds and currents bring him to a prosperous ending of his journey. The art of

economic success lies in understanding and to some extent foreseeing the whole trend of business development and of so adapting one's efforts as to grasp the opportunities thus presented, while yet keeping shrewdly within the limitations thus imposed.

The great trends of our American agricultural industry can be appreciated only if we go back far enough to see the succession of up and down movements that have unfolded themselves thus far, and if these movements be studied with relation one to another to see what are the underlying causes that have conditioned each successive stage of our evolution. We have been too much inclined to study 1923 simply with reference to the succession of events which have transpired since August, 1914, or at most to assume that the year 1913 or the average of four or five years preceding the outbreak of the European War constituted some sort of a "normal" plane, or established condition of agriculture, from which all our reckonings could be made. In the present volume we have gone back to a much earlier period in order that we might get a "running start."

Broadly stated, the book seeks to reveal: (1) the effects of European development upon American agriculture prior to 1900; (2) the changed conditions beginning near the end of the century; (3) the effects of the World War upon our agriculture; (4) the world-wide conditions making for the present depression in American farming; and (5) the prospects for agricultural exports to Europe in the years immediately ahead.

PART I

HOW THE PRESENT SITUATION DEVELOPED

CHAPTER I

PRE-WAR MARKETS AND AMERICAN AGRICULTURAL DEVELOPMENT

American agriculture grew up in conjunction with, and to a considerable degree in dependence upon, the growth of modern industrialism in Western Europe during the hundred and seventy-five years since the beginning of the Industrial Revolution. Both the extent and the character of our agricultural development have been in no small measure determined by the market demands for food products and industrial raw materials caused by the growth of the European industrial nations, particularly the United Kingdom and the German Empire.

This fact is, of course, known in a general way by everyone who is at all familiar with the economic history of the United States. The significance of the fact, however, and its effective application to the problems by which our farmers are to-day confronted are quite generally missed.

The present chapter will present a brief survey of our agricultural development and export relations prior to the outbreak of the European War. We shall review (1) the colonial and early national beginnings in the years before the Civil War; (2) the period of tremendous growth and of great mutual

interdependence of agricultural America and industrial Europe from the close of the Civil War to the end of the nineteenth century; and (3) the marked decline in many classes of agricultural exports which took place from about 1900 to 1914.

I. BEFORE THE CIVIL WAR

From the earliest days of American colonial beginnings Great Britain looked to this continent for a cheap and abundant source of extractive products but was at the same time careful that nothing should be imported which would injure the market for her home producers. As early as 1660 certain trading laws were enacted in England and certain policies were inaugurated in the colonies which were designed to stimulate the production of such agricultural products as did not compete with the British farmer and to direct those products entirely to the British market.

The agriculture of the southern colonies and of the West Indies promised in the main to supplement that of the British Isles and hence was encouraged. For example, among the "enumerated articles" which were to be exported exclusively to English ports under the laws just mentioned were to be found sugar, tobacco, indigo, cotton, and, later, rice and molasses.[1]

[1] The exports of sugar and rice increased so greatly as to make it impracticable to handle the whole of the exports at British ports, and these restrictions were therefore modified as to rice in 1730 and sugar in 1739, permitting them to be exported direct to points south of Cape Finisterre. Cotton of course was an insignificant item throughout the colonial period.

Tobacco enjoyed first a preferential tariff and later a complete monopoly of the British market. The importance of this matter can be judged from the fact that tobacco exports by 1660 amounted to nearly 8 million pounds and that throughout the colonial period it was the chief item of export, making up from one-quarter to one-half the total.

The agriculture of the northern colonies, on the other hand, directly competed with that of British farmers and hence was restricted by trade laws of various sorts. So-called "corn laws" were enacted against the importation of cereals from the colonies, these and other protectionist measures being designed to shut the doors of the British market against the wheat, corn, flour, and meat which were the chief agricultural products of the northern colonies.

The condition of these colonies was not serious so long as they were permitted to enjoy the trade of the West Indies. A three-cornered traffic had developed consisting of the export of cereals, flour, salt pork, and other foodstuffs from New England and the middle colonies to the West Indies, whose tropical products were exported to Europe, where they created bills of exchange which could be used in settlement of purchases of manufactures and other goods which were imported into the American colonies. There was also a considerable import of West Indian molasses to New England to be used in the manufacture of rum, part of which entered the export trade. All this traffic was jealously scrutinized by Great Britain and subjected to increasing restraints from time to time. These were

expressed in attempts to secure enforcement of the Navigation acts and in the passage of the Molasses Act of 1733 and the Sugar Act of 1764. At the same time any tendency toward the development of manufacturing in the colonies was firmly checked in conformity with the policy of protecting all classes of manufacturing in the British Isles. These restrictive policies brought forth aggressive opposition, particularly in the north, where agricultural resources were relatively meager and the development of manufacturing and trade a logical economic ambition. It was the New England colonies that constituted the "hotbed of the Revolution."

Following the War for Independence a succession of conflicting influences came to bear on American agriculture, gradually, however, establishing a settled dependence of European markets upon American sources of supply. The new republic experienced considerable difficulty in gaining access to European markets immediately following the war. Even worse, Great Britain, France, and Spain for several years hampered our trade with the West Indies. This resulted in a period of depression which sent "a steadily growing stream of soldiers with military script, debt-burdened farmers and artisans from the Atlantic seaboard, and adventurous pioneers to fill the western country" and laid the foundation for the larger agricultural production, so soon to be called upon. This new demand grew out of the Napoleonic wars with their military waste and their crippling of European production.

From 1793 forward the United States became in-

creasingly important as a source from which the belligerents might make up the deficit in their food supply. "A European market was created for the foodstuffs of the United States. They were too busy fighting to raise all the necessary food themselves, and moreover the free export of grain from the Baltic regions, then the granary of Europe, was prevented by Napoleon. The unprecedented demand for the agricultural products of this country raised their prices to extreme heights. Thus the price of flour at Philadelphia averaged $9.12 a barrel from 1793 to 1807, while for nine years previous it had been only $5.41 and for nine years afterwards was $5.46. There was also a growing demand for meat, for cotton and wool, and other raw materials. The production and sale of these products meant enormous profits for American farmers as well as shipowners, and was speedily reflected in the enhanced price of lands. . . . From whatever aspect we look at the developments of this period, it is evident that the American farmer and shipowner were profiting largely at the expense of the European belligerents. Moreover, the profits obtained from these sources were used to develop our resources and improve agriculture still further."[1]

This profitable market accrued most largely to the benefit of the seaboard states, because of the difficulties of transportation from the lands beyond the Appalachians. Indeed, the settlers in Ohio, Kentucky, and Tennessee were in dire straits for a time owing to the closing of the Mississippi River by

[1] Bogart, E. L., Economic History of the United States, p. 118.

Spain in 1783. With the reopening of the river in 1795 and the Louisiana Purchase in 1803 the West came also to share in the prosperity which a war-time export market afforded until the Embargo of 1807. As modified by the Non-Intercourse Act of 1809 and followed by the War of 1812, this checked seriously our agricultural expansion for the supply of European markets.

Gradually, however, a new and more permanent force began to make itself felt in the upbuilding of this export market. This sprang from the industrial growth of England, with its resultant neglect of domestic agriculture,[1] its growing need for imported foodstuffs, and particularly its rapidly mounting consumption of American cotton.

Cotton had come to commercial importance only after the invention of the cotton gin in 1793, but by 1803 it had passed tobacco in importance as an export and in 1807 rose to a value of over $14,000,000. Nor was its economic influence limited to the South. Since cotton culture nearly monopolized the energies of those sections where it was grown, it at once converted them into food-deficit areas, creating thereby a profitable market for the cereals, salt pork, and other products of the border and northwestern states. The demand of the cotton region for mules and horses was also a profitable item in the trade of these general-farming states.

[1] "Whereas in 1811 the agricultural population comprised 34 per cent of the whole, in 1821 it comprised but 32 per cent; in 1831, 28 per cent; in 1841, 22 per cent; in 1851, 16 per cent; and in 1861, 10 per cent." *Ogg, F. A., Economic Development of Modern Europe, p. 160.*

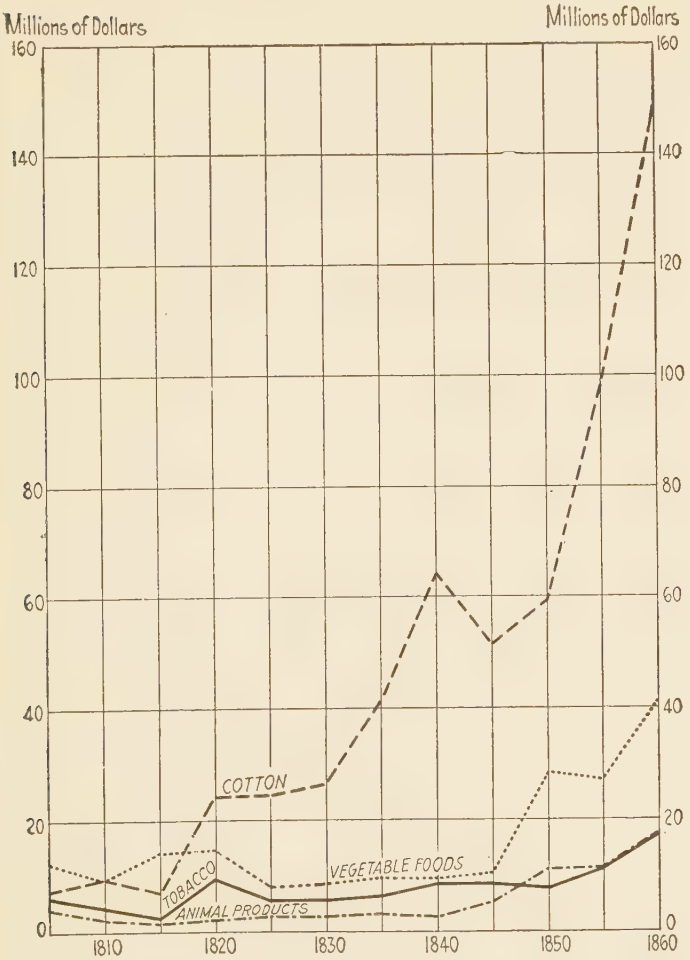

FIGURE 1.—AGRICULTURAL EXPORTS FROM THE UNITED STATES, 1805–1860.

In addition to their river-borne commerce with the South, however, the north-central states needed an easy outlet to the Atlantic. This was afforded by the opening of the Erie Canal in 1825 and the subsequent rapid canal development and by the coming of the railroads during the forties. It was not until the late thirties that western produce began to move to the East in any significant quantities. The grain trade of Chicago is supposed to have had its beginning in 1838; but, once begun, its development soon became rapid. The chief factor here was the growing industrialization of England, leading to the frank abandonment of any notion of agricultural self-sufficiency. The growth of factories and cities made the repeal of the Corn Laws inevitable in the long run, although the new policy did not come to open expression until 1846 nor to full effect until 1849. A surplus of foodstuffs being already available in the American West and means of transportation having been by this time quite fully developed, a leap in the volume of agricultural exports from this country immediately followed. (See table on p. 15.) The expansion of food exports was well maintained during the fifties, and the growth in cotton exports was enormous. Figure 1 (p. 13) presents the data graphically by five-year averages.

Viewing the whole period from colonial beginnings to the Civil War, there is observable a distinct change of economic purpose as time introduced new elements into the foreign and domestic situation. The colonial period culminates in armed resistance by the colonies to the effort to make them mere purveyors of food

EXPORTS OF DOMESTIC AGRICULTURAL PRODUCTS FROM THE UNITED STATES, 1805–1860

(Fiscal years)

Year	Animals and animal products	Vegetable food	Tobacco	Cotton
1805	$3,385,000	$11,752,000	$6,341,000	$9,445,000
1810	2,169,000	10,750,000	5,048,000	15,108,000
1815	1,332,000	11,234,000	8,235,000	17,529,000
1820	2,447,000	8,401,000	7,968,600	22,308,667
1825	3,314,793	7,526,718	6,115,623	36,846,649
1830	2,379,652	9,121,345	5,586,365	29,674,883
1835	2,901,896	8,383,997	8,250,577	64,961,302
1840	3,006,034	15,587,657	9,883,957	63,870,307
1845	6,206,394	9,810,508	7,469,819	51,739,643
1846	7,833,864	19,329,585	8,478,270	42,767,341
1847	11,113,074	57,070,356	7,242,086	53,415,848
1848	12,538,896	25,185,647	7,551,122	61,998,294
1849	13,153,302	25,642,362	5,804,207	66,396,967
1850	10,549,383	15,822,373	9,951,023	71,984,616
1851	7,399,655 [a]	16,877,844 [a]	9,219,251	112,315,317
1852	6,323,439 [a]	19,882,588 [a]	10,031,283	87,965,732
1853	9,570,327 [a]	23,793,388 [a]	11,319,319	109,456,404
1854	15,325,618 [a]	51,190,680 [a]	10,016,046	93,596,220
1855	17,178,080 [a]	23,651,362 [a]	14,712,468	88,143,844
1856	17,655,922 [a]	59,390,906 [a]	12,221,843	128,382,351
1857	16,736,458 [a]	58,333,176 [a]	20,260,772	131,575,859
1858	16,514,241 [a]	35,924,848 [a]	17,009,767	131,386,661
1859	15,549,817 [a]	24,046,752 [a]	21,074,038	161,434,923
1860	20,215,226 [a]	27,590,298 [a]	15,906,547	191,806,555

[a] These figures are not strictly comparable with previous years; the differences are however, minor.

and other raw products to a manufacturing and trading motherland. The early national period, on the other hand, culminates in the so-called "Golden Age" of the fifties, in which the United States not only willingly but even eagerly accepted the rôle of producer of extractive products and prospered mightily from the export of her surplus, the one-time mother country being by all odds her best customer. In the seventy-five years in which the transition had been brought about, however, a great tide of migration had swept from or through the Atlantic seaboard states with their cramped and thin agricultural resources, out to the astounding breadth and richness of the Mississippi Valley. Turnpikes, then waterways, and finally railways had opened an outpath for the settler and an inbound highway for his products. The Northeast, by reason of its geographic location and resources, kept alive the spark of our future industrialism, but 80 per cent of our exports were agricultural and during the five-year period 1856–60 we imported manufactures equal to over 85 per cent of our agricultural exports.

II. FROM THE CIVIL WAR TO THE CLOSE OF THE CENTURY

Inevitably the Civil War operated as a check on our foreign trade. So far as agricultural products were concerned there was a disastrous drop in the southern exports, cotton, tobacco, and rice. The northern states, on the other hand, were able to maintain a surprising flow of exports, which were of enormous value in sustaining the financial position

of the Union during the war period. It so happened that English cereal crops were decidedly poor in 1860, 1861, and 1862, and the supplies of continental Europe were inadequate to meet the deficiency.[1] The way in which America filled this gap, even while herself torn by civil war, is shown in the table. The growth in meat exports is no less striking than that in grain.

Domestic Agricultural Exports During the Civil War
(000 omitted)

Year ending June 30	Wheat and corn [a]	Beef, pork, and their products	Cotton	Leaf tobacco
	Bushels	*Pounds*	*Pounds*	*Pounds*
1860	21,462	161,211	1,767,686	173,844
1861	64,348	184,829	307,516	168,469
1862	81,619	395,585	5,065	116,723
1863	75,262	532,203	11,385	118,750
1864	46,615	362,461	11,994	113,384
1865	26,761	190,334	8,894	161,355

[a] Including wheat flour and corn meal.

[1] "The wheat-exporting countries of continental Europe, however, failed Great Britain in the hour of need. Imports from Russia and Prussia remained steady, but these two countries were unable to respond to Great Britain's greatly increased demands. Imports from France suffered a sharp falling off, owing to crop failures in 1861 and 1862. Nor were Egypt and the South American countries able to furnish sufficient wheat to meet the shortage. It was the United States alone that was able to supply the deficiency."—*Schmidt, L. B., Iowa Journal of History and Politics, vol. 16, p. 426.* In this article Professor Schmidt shows that it was this opportune dependence on American wheat which was in all probability the decisive factor in keeping the British Government from recognizing the Confederacy.

The decline in production which might have been expected as a result of the loss of man power to the armies was offset in part by immigration but also quite strikingly by the increased use of horsepower implements. This made possible a vigorous response to the stimulus of high prices here and abroad. At the same time it was the closing of the formerly flourishing market for northern products in our own southern states which made possible the diversion of so large an export surplus to the foreign market.

After the return of peace, the expansion of those lines of agriculture which had prospered during the war and the recovery of those which had languished was in the main both prompt and steady. Although the South was at a disadvantage except as to rice, the revival and growth of her export market was surprisingly good, her chief products, cotton and tobacco, being in great demand and subject to relatively little competition from other producing countries. Northern exports showed a phenomenal growth. This was due to a conjunction of several factors: (1) the enlargement and cheapening of agricultural production in the new West with its virtually free lands and its flood of immigration; (2) the industrial expansion of England and, later, of several Continental centers; and (3) the rapid growth of cheap means of transportation to connect our specialized areas of production with these centers of intensive consumption. Naturally, it took several years for the results of these influences to become fully apparent.

By 1875 settlement and farm development had so far

progressed and the railway net had been so fully extended as to pour a veritable flood of American products into European markets. British farming, which had been in orderly retreat for over fifty years, was thrown into a rout.[1] In spite of the depressing

[1] "The last good year was 1874, and before the end of 1875 the shadow of depression was beginning to fall. . . . In 1882 a government commission testified mournfully to the 'great extent and intensity of the distress which has fallen upon the agricultural community.' And as time went on it began to appear that, far from being merely ephemeral, the adverse conditions which had arisen were permanent and perhaps largely irremediable. In point of fact, the depression which had thus settled upon the agrarian portion of the country has continued with only a modicum of relief to the present day. . . . The first matter to be observed is the sharp reduction since 1875 of the amount of land under cultivation and the considerable increase of the amount utilized for grazing. The extent of this double change appears from the following figures:

Acres (in millions) in England, Wales, and Scotland

Year	Arable land	Permanent grass land
1871.....	18.4	12.4
1881.....	17.4	14.6
1891.....	16.4	16.4
1901.....	15.6	16.7

The total area devoted to wheat fell from about 3,700,000 acres in 1870 to . . . 1,700,000 in 1900. . . . The decline in acreage has been heaviest in the case of wheat; but it has appeared in some measure in all corn crops grown in the United Kingdom except oats. Taking corn crops as a whole, the area cultivated was diminished by 3,000,000 acres, or almost 40 per cent, in the three decades 1876–1906. . . . The area under grass increased by almost one-third in 1876–1906; yet the quantity of meat produced from home-fed stock was increased by only 5 per cent. From this situation it arises that the British people have become dependent in a fairly astounding degree upon foodstuffs imported from abroad."—*Ogg, F. A., Economic Development of Modern Europe, pp. 161–163.*

effect of American imports upon domestic prices, the English farmer had maintained a precarious economic hold so long as weather and yield were not too unfavorable. But 1876, 1877, and 1879 were years of poor crops and heavy live-stock losses, while the abundance of imports kept prices from rising much above their customary depressed level. This combination of wretched yield and low prices, when several times repeated, proved too much. Nor was this situation limited to Great Britain. Important agricultural areas on the Continent were hardly less demoralized. This was notably true of Denmark.[1]

At the same time industrialism was growing on the Continent. Such growth was significant in both Belgium and France, but it was, of course, in Germany that the really spectacular development of the last quarter of a century took place. German industrialism had been in the incubation stage prior to 1870, but with the successful outcome of the Franco-Prussian War and the development of the empire

[1] "This change [from grain growing to dairying] took place at a highly opportune moment when the great revolution of the seventies came to alter the commercial condition of agriculture in Western Europe. Corn [cereals] from the East and from overseas flooded European markets. . . . Soon after this also animal produce, live animals, and meat were sent out to Europe from America, Australia, and other countries. . . . The result was keen competition with the whole world heretofore quite unknown in Europe. This was particularly felt by European agriculture. All the countries in Europe except the United Kingdom, Netherlands, Belgium, and Denmark tried to stem the tide by imposing high import duties on agricultural products." —*Faber, Harald, The Cooperative Movement and Danish Agriculture, p. 32.*

industrial ambitions broke the shell and started on a period of rapid growth and active development. This resulted in an increase and urbanization of the population which produced results similar to those which had appeared in England some decades earlier. These included a marked raising of the general standard of living of the German workman and an opening of German trade relations with Russia, Scandinavia, and the Danube countries which had a profoundly stimulating effect upon a considerable part of the European population.

While agriculture was by no means so completely neglected in imperial Germany as in England, neither was it so carefully preserved as in France. This was particularly true during the earlier part of the period of industrialization, while the zeal to overtake England was most acute, the thought of possible dangers from this competition most remote, and foreign agricultural products at their lowest ebb of prices.

The outstanding facts of the German town and factory movement are well set forth by Clapham as follows:[1]

> . . . taking for the Empire the usual statistical division, by which the population in communities of 2,000 and upwards is classed as urban, it appears that 63.9 per cent of the population was still rural in 1871. What happened in the next forty years the table shows.
>
> The figures suggest a whole nation rushing to town. The rush was greatest into the greatest towns. In 1890

[1] Clapham, J. H., Economic Development of France and Germany, 1815–1914, p. 278.

there lived in cities of 100,000 inhabitants and upwards 11.4 per cent of the German population. In 1910 the corresponding figure was 21.3 per cent (13,823,000 souls). The rural population remained almost stationary throughout; and the enormous increase in the total population was absorbed by the towns. The maintenance of so large a rural population, under modern agricultural conditions, is a considerable achievement, especially when it is considered how small an area of Germany is naturally suited to intensive agriculture; but note that the attraction of industry and the towns was so strong, or the drag of the land so weak, that these 26,000,000 cultivators needed latterly a great body of migratory helpers from outside. There were not Germans enough on the land to gather the land's produce.

	Total population	Rural percentage	Urban percentage
1871	41,059,000	63.9	36.1
1880	45,234,000	58.6	41.4
1890	49,428,000	57.5	42.5
1900	56,367,000	45.6	54.4
1910	64,926,000	40.0	60.0

There was presented, therefore, an important demand for food imports from abroad, which through a combination of circumstances the United States was at that time in the most favorable position to supply.

The rapid extension of our agricultural domain gave us a constantly increasing output of staple agricultural produce, which was thrown upon the markets in such quantities as continually to depress prices. The

financial panic and industrial depression which our country suffered during the nineties accentuated this low-price tendency still further. Thus it was brought about that Germany and other industrial countries of Europe found here an extremely favorable market in which to buy during the time that their own resources were being diverted so vigorously to industrial development. The existence of this European market with its expanding capacity to absorb the vast agricultural surpluses of America's virgin lands was one of the most decisive factors in making possible the tremendous national growth which took place in our country in the three closing decades of the nineteenth century.

The growth of agricultural exports as a whole during this period[1] is shown graphically in figure 2, and

[1] For method of computing these data, see footnote 1, p. 31. This chart shows the total of agricultural exports to all markets. This includes, of course, goods going to non-European ports, but the quantity of the latter, though it had been increasing ever since the great expansion of our export trade, was relatively insignificant even at the close of the century. In the five-year period of 1896–1900 the agricultural products going to non-European markets comprised only 12 per cent of the total value. Furthermore, 3.38 per cent of the total was made up of exports to Canada, the major portion of which no doubt was destined ultimately to reach European markets by way of Canadian ports. (See Bull. 16, Section of Foreign Markets, U. S. Dept. of Agri., pp. 13 and 15.) Consequently it is safe to assume that from the time agricultural exports began their great growth up to the end of the century, there was no year during which those going to Europe did not comprise at least 90 per cent of the total. Furthermore, even the small percentage of the trade which moved to non-European countries consisted largely of minor items, such as fruit, dairy products, rice, and the like which moved to countries in the West Indies, South America, Canada or the Orient. It is the great staple commodities such as cotton,

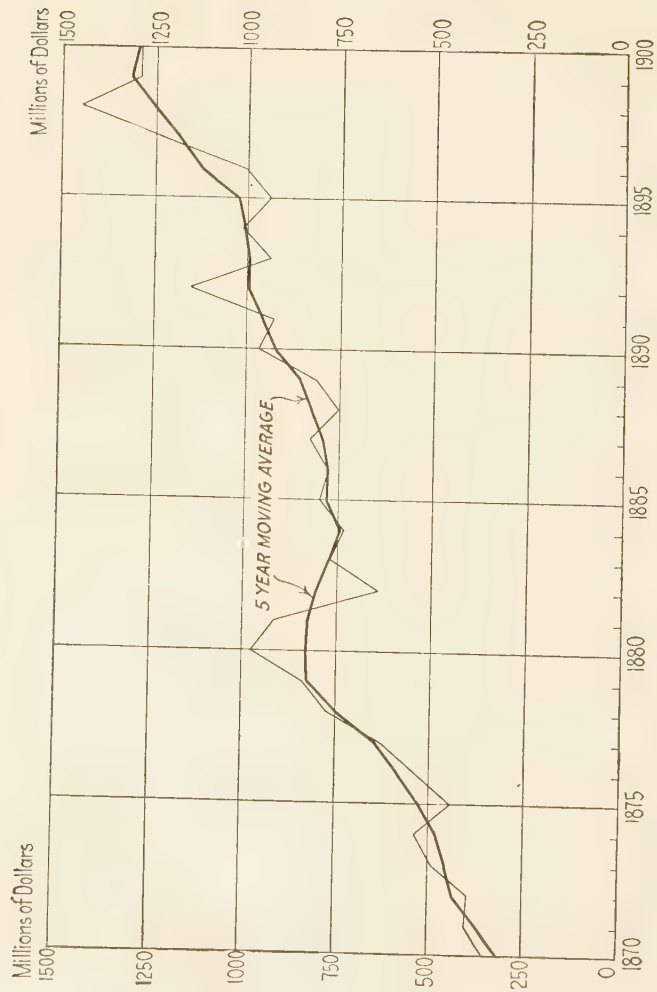

FIGURE 2.—GROWTH OF AGRICULTURAL EXPORTS FROM THE UNITED STATES, 1870–1900.
(Total values adjusted to changing agricultural price level.)

several of the chief items are shown separately in figures 3, 4, 5, and 6 and in the table below. The relative significance of the principal European countries as markets for American cereals, meats, cotton, and tobacco is shown in Appendix A (p. 139) together with some explanation of the nature of this export trade.

EXPORTS OF PRINCIPAL DOMESTIC AGRICULTURAL PRODUCTS BY FIVE-YEAR AVERAGES, 1867–1901

(000 omitted)

Year ending June 30	Wheat [a]	Corn [b]	Beef and products	Pork and products	Cotton	Tobacco
	Bushels	*Bushels*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
1867–71	35,032	9,924	54,532	128,249	902,410	194,754
1872–76	66,037	38,561	114,821	568,029	1,248,805	241,848
1877–81	133,263	88,190	218,710	1,075,793	1,738,892	266,315
1882–86	121,675	49,992	225,626	739,456	1,968,178	237,942
1887–91	115,529	54,606	411,798	936,248	2,439,650	259,248
1892–96	170,624	63,980	507,177	1,052,134	2,736,655	281,746
1897–01	197,427	192,531	637,268	1,528,139	3,447,910	304,402

[a] Including wheat flour.
[b] Including corn meal.

The thirty-year period 1870 to 1900 shows a tremendous volume of agricultural exports, mounting quite steadily in all the chief lines of cereals, live-

grain, and packing-house products which we are chiefly concerned in analyzing, and in many of these European trade and total exports were practically synonymous. For instance, European takings averaged about 99½ per cent of total exports of fresh beef, 98 per cent of cotton, 93 per cent of bacon, 92 per cent of tobacco, and 91 per cent of wheat.

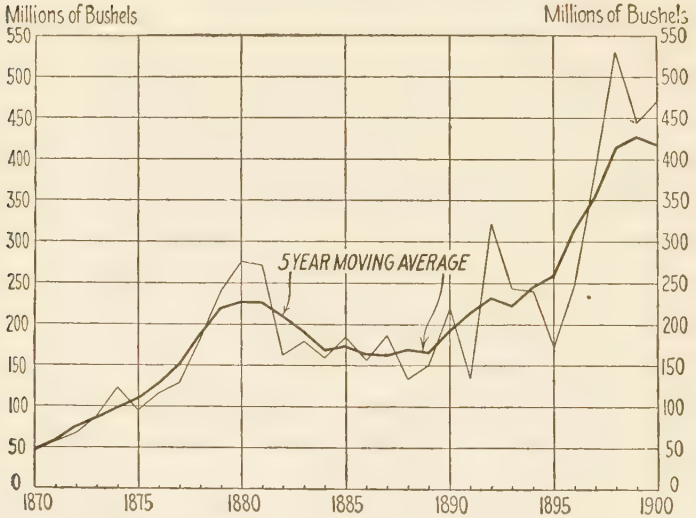

FIGURE 3.—NET EXPORTS OF PRINCIPAL CEREALS FROM THE UNITED STATES, 1870–1900

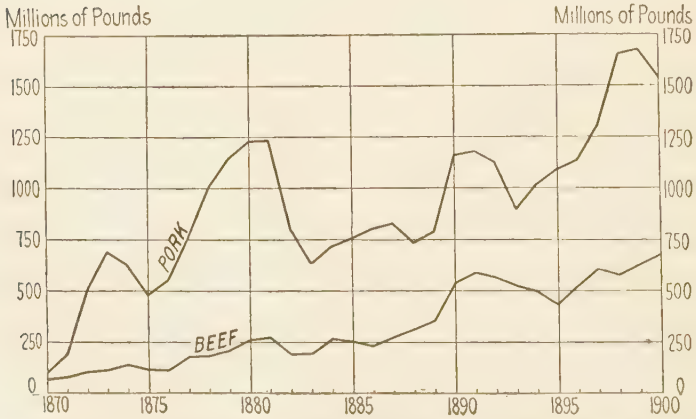

FIGURE 4.—EXPORTS OF DOMESTIC PORK AND BEEF FROM THE UNITED STATES, 1870–1900.

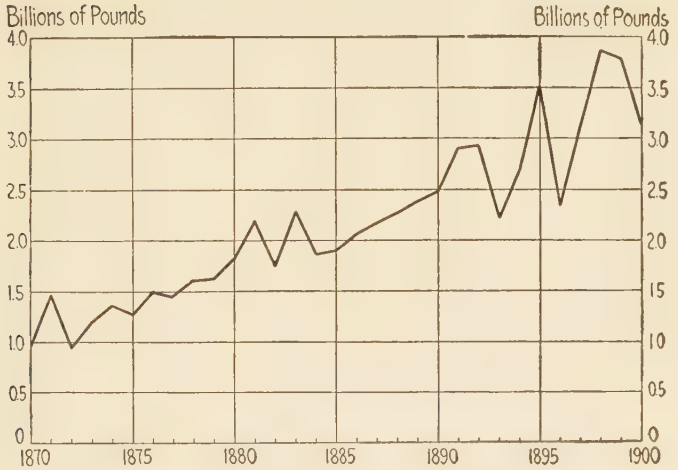

FIGURE 5.—EXPORTS OF DOMESTIC COTTON FROM THE UNITED STATES, 1870–1900.

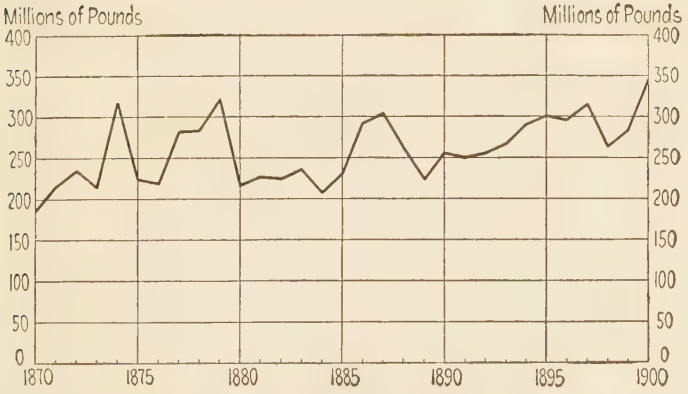

FIGURE 6.—EXPORTS OF DOMESTIC TOBACCO FROM THE UNITED STATES, 1870–1900.

stock products, cotton, and tobacco. It was the natural accompaniment of a period of pioneer expansion, and implies a very great dependence of the farming industry of the period upon a European market. Three factors in the situation should, however, be clearly borne in mind:

1. The agriculture which produced this abundance of farm produce was the hasty and pellmell outpouring of native land-grabbers and foreign immigrants upon an extraordinary stretch of virgin land, not a seasoned economic development upon lines of careful planning with due regard to costs, prices, and return to labor and investment.

2. The crops grown under such conditions of flush production sold over wide areas and during extended periods at prices ruinously low to the farmer.

3. The European markets absorbed the quantities of American farm exports that they did largely because we were conducting the most stupendous bargain counter in the history of agriculture. Europe's dependence upon us for food and raw materials was, however, by no means absolute, as we shall see in the following section.

III. FROM 1900 TO 1914

As we cross the imaginary line that divides the nineteenth century from the twentieth, we come into a zone whose characteristics so far as agricultural exports are concerned differ markedly from those which we have been observing.

The United States began definitely to decline in

importance as an exporter of foodstuffs. This is shown clearly in the graphs of figures 7 and 8 (p. 30).

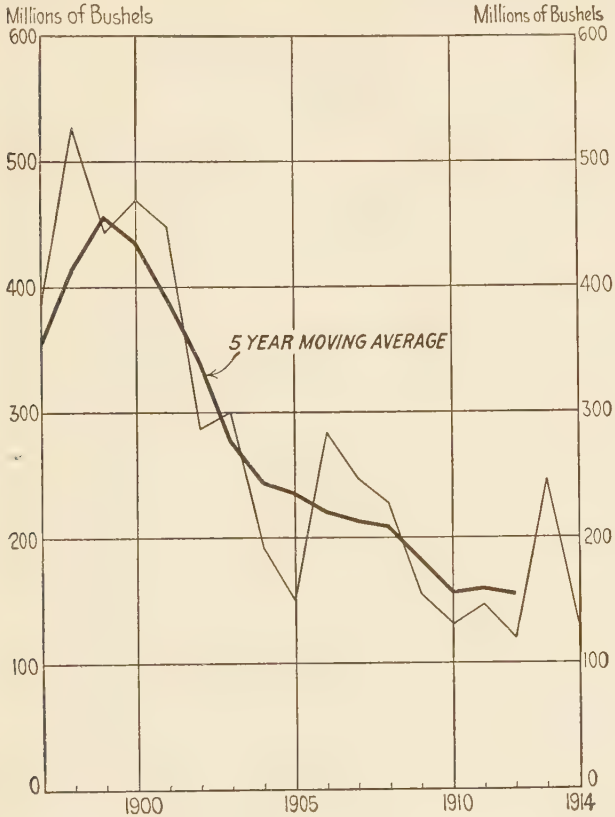

FIGURE 7.—NET EXPORTS OF PRINCIPAL CEREALS FROM THE UNITED STATES, 1897–1914.

The export of fresh beef dropped from 352 million pounds in 1901 to 6 million in 1914; bacon exports dropped from the 1898 maximum of 650 million

pounds to a low point of 152 million in 1910 and 194 million in the last pre-war year. Lard exports were better maintained because of our peculiar advantage in this field,[1] but dropped from 711 million

FIGURE 8.—EXPORTS OF DOMESTIC PORK AND BEEF PRODUCTS FROM THE UNITED STATES, 1895–1914.

in 1899 to 363 million in 1910 and 481 million in 1914. The peak of wheat and flour exports had been reached in 1902 with 235 million bushels, and that of corn in 1900 with 213 million. Wheat was down to 146 million in 1914 but had been as low as

[1] Cf. p. 35.

44 million in 1905 and averaged less than 79 million in 1910–11–12. Corn exports dropped below 11 million bushels in 1913, but this was distinctly below the average of the preceding decade. Butter and cheese exports, which had risen from 40 million pounds at the close of the Civil War to 180 million pounds in 1881, stood at 79 million pounds in 1898 but at only 6 million in 1914.

This marked decline in agricultural exports during the period of approximately fifteen years prior to the outbreak of the European War is a phenomenon which is less fully appreciated by many people than is the great upswing of exports in the later years of the nineteenth century. It needs, however, to be carefully borne in mind by anyone who desires to keep a correct perspective upon the present phase of the problem of agricultural trade. Figure 9 (p. 32) shows both the growth and the decline in total exports of farm products from the end of the Civil War to the outbreak of the World War.[1]

[1] Unfortunately it is not possible to present a figure for total exports in terms of physical quantities. For quite a number of the minor items no quantity figure was reported. Also, there is no common denominator for pounds, bushels, gallons, and head of live stock, in terms of which our export figures are gathered. While money values constitute such a common denominator it is a very unsatisfactory one owing to the marked changes in value which occur over so long a period and which, for important commodities, are often quite extreme even from one year to the next. In order to remove, so far as possible, this element of variation in preparing the graph in figure 9, the total values have been adjusted to the index number of farm prices as computed by the government. It is admitted that this method is far from satisfactory, and yet the graph probably reflects with a fair degree of correctness the advance and subsequent decline in our total agricultural exports.

It will be observed that this line of total exports, although it has declined since 1900, has not fallen off at anything like the precipitous rate that is shown by the export figures for cereals and live-stock products. This is due to the fact that both cotton and tobacco exports continued a fairly steady rate of increase during this period and that certain other lines of export, such as rice, cottonseed oil and cake,

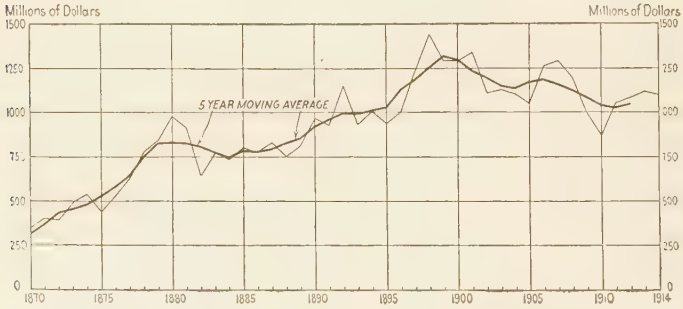

FIGURE 9.—TOTAL DOMESTIC AGRICULTURAL EXPORTS FROM THE UNITED STATES, 1870–1914.

(Values adjusted to changing agricultural price level.)

and fresh, canned, and dried fruits maintained or increased their volume while the coarser and bulkier farm products were falling off. This change indicates some turning from more extensive toward more intensive types of agriculture, while the growth of cotton and tobacco exports reflected the continued dependence of Europe upon the two great southern staples which are practically noncompetitive so far as European farming is concerned. Cereals and live stock, on the other hand, compete

directly with the European farmer and also with the agriculturists of Argentina, Australia, and other new regions.

For explanation of what was taking place in food production and international trade during the pre-war period, we must look first to the agrarian policy of certain European countries. The producers of France and Germany in particular had felt very keenly the competition of cheap exports from the United States and had organized both commercially and politically to combat this invasion. The flood of American produce was checked by successive advances in tariff rates or, in certain cases, was entirely stopped by embargoes based on sanitary grounds, particularly in the case of hog products. The situation so far as France is concerned is succinctly stated as follows:

> In 1897 the wheat duty was pushed from 5 to 7 francs. Next year the butter duty went up again. The wine duties were revised and raised in 1899. In 1903 the rates on cattle and meat were advanced. The details need not be followed further. Up to 1914 there was no change in principle; although, as had been already seen, the beet industry lost its export bounty and suffered accordingly. French agriculture in the last age must be thought of as working behind a stout tariff wall. If one object of this was to make France self-sufficing in bread, success can be claimed. . . . Whereas in 1886 92 the average net import of wheat was nearly one-seventh of the home production, in 1896–1902 it was less than one-seventeenth, and in 1906–12 about one-thirteenth.[1]

How much of this policy was based on economic

[1] Clapham, J. H., Economic Development of France and Germany, 1815–1914, pp. 182–183.

grounds and how much of it was political or military it would be hard to say. Undoubtedly France's continental position, with the threat of blockades which could be made effective against such navy and merchant marine as she maintained, had something to do with her desire to secure self-sufficiency in the matter of agricultural produce, particularly foodstuffs.

The latter motive was even more clearly evident in Germany, whose strategic position was distinctly less satisfactory than that of France. Economists as well as statesmen frankly avowed a policy of self-sufficiency for the empire,[1] and a whole succession of domestic bounties, foreign tariffs, and special transportation rates were framed to carry this policy into effect. Bismarck sprang from the agrarian class of East Prussia and both sympathized with and represented their views in those policies, tariff and other, which were designed to maintain German agriculture in the face of foreign competition. His successors, however, followed a less protectionist policy which, taken with the low prices abroad during the nineties, resulted in such large imports as to revive and strengthen the militarist-agrarian agitation. After a long and vigorous campaign, the agrarian demands for fuller protection were largely granted in the new tariff of 1902.

Taken as a whole, continental Europe was making strenuous efforts to maintain or restore her own agricultural class. It was being aided in this effort

[1] Von der Goltz, T., Vorlesungen über Agrarwesen und Agrarpolitik, p. 11.

by the new knowledge of scientific agriculture which had developed so rapidly during the latter part of the nineteenth century. Given time and the desire for greater self-sufficiency, Germany increased her use of artificial fertilizers, shifted her production to crops which could be most easily produced from her resources, imported agricultural labor, and quite effectively stemmed the tide of agricultural decline which had been an early accompaniment of her shift toward industrialism. Potato culture was pushed forward into a position of unprecedented importance in the national economy, sugar-beet culture was developed on the most scientific lines, swine production was tripled between 1873 and 1912.

Some of the results of this policy will be seen by an examination of Appendix B. For instance, our corn exports to Germany, which averaged nearly 40 million bushels per year for the quadrennium 1897 to 1900 inclusive, were nearly extinguished just prior to the opening of the World War. This was doubtless due to the great development of potatoes as a raw material for distillation as well as the increased use of both potatoes and beet pulp for animal feeding. During the same period the exports of bacon, hams, and shoulders decreased from over 58 million pounds in 1898 to little more than one million pounds in 1913. Lard exports are an exception to this general situation in that they show no definite tendency to decline during the whole period. The obvious explanation is that the enormous increase in German hogs, to which we have referred, relates to the meat type of hog rather than to a

heavy lard producer. Feeding their swine, as they were obliged to do, on potatoes and barley, the Germans were able to produce the bulk of their home requirements in bacon, hams, sausage, and the like or to import them from near-by countries which produced a similar product. They were not, however, able to supply their need of animal fats with domestic lard on a basis which would enable them to compete with the United States and its cheap and abundant supplies of Indian corn.

A second reason for the decline of European and particularly German imports of American foodstuffs since the late nineties was the development of other sources of supply. Germany's tariff war with Russia was ended in 1894; and from that time forward she was assiduously developing a market for her manufactures in Russia and in the Danube countries, receiving in return an increasing import of farm products from these more agricultural areas. A quite similar trade development was taking place in South America and other nonindustrial areas which were being brought within the reach of Germany's expanding finance and shipping operations.

This same shifting from America to other sources for their agricultural imports was marked in the case of Great Britain. It had a more profound effect in this case also because the United Kingdom had been a much heavier importer from the United States than any of the Continental countries or all of them combined. In contrast to the agricultural policy of France and Germany, Britain scorned any notion of self-sufficiency for military reasons and fol-

lowed a policy of free trade in agricultural products. She allowed her own agriculture to slip back to such position as it could maintain for itself in the face of competition from newer lands, placing her reliance meanwhile in an aggressive commercial and industrial development, preeminence in finance, a large merchant marine, and an invincible navy.

But though the United Kingdom was by all odds the most important and satisfactory foreign market for our agricultural products throughout the whole of our export history, her imports of food from the United States declined appreciably from the late nineties to the period just preceding the Great War. Even in the latter period (average of 1910 to 1914 inclusive), however, her imports of wheat and corn were more than triple those of Germany; her imports of hams, shoulders, and bacon out of all comparison and of lard nearly a third higher than even the large imports of Germany. Comparisons of the two periods and for the three principal countries are shown statistically in the table on the following page and graphically in charts (figs. 33–37 inclusive), in Appendix B.

A third reason for decline in our exports to the Continent is to be found in the growth of the American domestic market. This is, of course, closely related to the shift to other sources, which we have just been discussing. The movement has been viewed as a strengthening of the pull of other agricultural lands. We shall now look at it as a weakening of the inducements offered by the United States. By a natural process of economic evolution we were ceasing to be

a heavy exporter of raw materials. Industrial development in the United States caught up with the overstimulated agricultural development of the free-land period, with a resultant increase in the ratio at which agricultural products exchanged for manufactures. The supply of agricultural products began to recognize a new dependence on production costs when practically all the worth-while public lands had been taken up and population still continued to grow at a rapid rate.

DOMESTIC EXPORTS OF AMERICAN FOODSTUFFS TO THE UNITED KINGDOM, GERMANY, AND FRANCE, BY FIVE-YEAR AVERAGES *

(000 omitted)

	United Kingdom		Germany		France	
	1897–1901	1910–1914	1897–1901	1910–1914	1897–1901	1910–1914
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Bushels*
Wheat	71,735	26,777	9,406	5,825	7,543	7,637
Corn	74,101	10,168	36,138	4,952	6,380	(a)
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bacon	404,988	129,682	31,026	1,156	6,209	4,670
Hams and shoulders	171,922	138,982	6,057	(a)	980	(a)
Lard	213,986	170,414	202,450	133,361	23,055	15,131

* Calendar years.

[a] Too small to be separately reported.

Considered as a domestic problem this gave to the farmer a more profitable return on his industry, and to the manufacturer and urban dweller a steadily increasing complaint about the "high cost of living," which became outspoken about 1909. Considered as a problem of foreign trade it meant that America became a less desirable buying market,

particularly for countries which wished to exchange for our agricultural products such manufactures as were now being turned out in greater bulk and variety by the rapidly expanding industrial plants of our own country. Obviously, any industrial country in Europe would turn for her agricultural supplies to such lands as offered the most advantageous market either by reason of geographical nearness, imperial ties, industrial underdevelopment, or that early agricultural development which results in one-crop farming. In varying degrees all these conditions were met with better in Russia, Canada, Argentina, Australia, and India in the period since the beginning of the twentieth century than they were in the United States.

The figures of home production and foreign trade in the decade or two preceding the European war suggest that there was coming to be an approach toward more stable adjustment of agriculture, industry, and international trade. The swift, indeed revolutionary, developments of the latter half of the nineteenth century had been brought about by the rapid industrialization of Western Europe and Northeast United States, and the exploitation of great agricultural domains in North America, South America, Australasia and, in lesser degree, elsewhere. Now the dwindling significance of our cereal and meat exports clearly foreshadowed a time when the United States would no longer export these products and suggested that in time she might even become an importer of them. Such a situation had already come to pass in regard to Canadian wheat and barley; Argentine

meat, wool, hides, and occasionally corn and oats; Australasian wool and hides; Chinese eggs; Danish butter; and cheese from several sources. (See Appendix C.)

American agriculture was settling down after the exuberance of the free-land epoch. Instead of continuing to increase the surplus of a few staple cereals and live-stock products, our farmers were tentatively but continually shifting their productive efforts toward new lines of endeavor which promised more satisfactory results. Such changes increased our domestic sugar supply, enlarged our dairy and horticultural output, and augmented the cities' supply of fresh milk and out-of-season fruits and vegetables. Even such diversification and intensification of our agriculture failed to maintain a rate of growth commensurate with that of the nineteenth century. The process of economic adjustment in the light of our more mature national development tended to divert new outlays of capital and new increments of labor toward industrial expansion rather than to encourage their entrance into agriculture to pile up great export surpluses. The farming population constituted 35.3 per cent of those gainfully employed in the United States in 1900, and only 32.5 per cent in 1910; while the percentage of those engaged in manufactures, trade, and transportation rose from 40.8 in 1900 to 48.2 in 1910.

The cotton situation was in sharp contrast to the decline in cereal and meat exports. Cotton was conspicuous as a crop to whose production for export we continued to apply ourselves assiduously because

of the surpassing character of our natural advantages as compared with the rest of the world. In the case of the long-staple fiber, some of which we had to import for our own uses, we were even tending to increase our production by the best methods of plant adaptation and breeding on the most favored delta lands of the South and on certain irrigated areas of the Southwest. Likewise our notable growth in the more intensive lines of production, such as horticulture and dairying, showed possibilities of not merely meeting the needs of a growing and prosperous domestic market but even of introducing new lines of export (such as dried and even fresh fruit) which would increase the diversity of our outlets and hence add to the stability of our agricultural industry.

During this pre-war period there had been a remarkable advance in agricultural education, including the scientific study of agricultural economics and the analysis of production costs. This had in time led to the setting up of an elaborate machinery for extending the results of such investigations to the rank and file of farmers. Farming was being put on a solid business basis. Had not the World War supervened it seems reasonable to suppose that this process of readjustment would have gone on rationally even though not rapidly. Such an outcome would have safeguarded the prosperity of farmers and have contributed to the economic health of the country as a whole. However, the World War did come and in its train a tremendous upheaval of our whole agricultural industry and new problems of

agricultural and trade readjustment as one phase of the great reconstruction period.

To understand the post-war troubles of our farmers we must carefully examine the chief feature of this war-time disturbance of American agriculture. This will be the task of Chapter II. In approaching it, however, we should keep in mind the following points in the pre-war evolution of our agricultural trade:

1. From an early colonial period Europe was glad to look to America for such agricultural products as tobacco, rice, and cotton (after the coming of the gin), for whose production her own lands were ill adapted.

2. During the Napoleonic Wars and again later, as Britain launched on a whole-hearted industrial career, a market for cereals, meats, and other food products was opened, which expanded as fast as western settlement and cheap transportation could be developed.

3. This movement was greatly augmented by the industrialization of the Continent under the lead of Germany in the last quarter of the century.

4. As we outgrew the pioneer stage, the expanding population and increasing industrialization of the United States reduced the size and enhanced the price of our agricultural surplus and caused Europe to revive domestic agriculture and turn to less industrialized countries as sources of supply.

5. By the opening of the European War the United States was rapidly approaching an agricultural-industrial balance, with supplies abundant enough to make prosperous industry and trade, and farm prices high enough to make a prosperous agriculture.

CHAPTER II

DERANGING EFFECTS OF THE WORLD WAR UPON AMERICAN AGRICULTURE

The opening of the European War introduced a violently disturbing factor into the process of our agricultural adjustment discussed at the close of the preceding chapter. A tremendous need for food and clothing materials developed swiftly out of the exigencies of the conflict, and circumstances combined to make America the most eligible candidate for the task of supplying these needs. At first only slight and temporary adjustments in our agriculture appeared as a consequence of this stimulus. But as the war developed into a world-embracing struggle, the lure of high prices and the spur of patriotism caused these changes to assume a deeper and more far-reaching character, amounting in time to a derangement in many parts of our farming industry so severe that when the time came for readjustment it could not be promptly brought about.

The several steps in war development included, first, curtailed production and impaired import facilities in Europe; second, intensive buying and mounting prices in the United States; and, third,

an expanded and readjusted condition in our farming industry.

I. CURTAILED PRODUCTION IN EUROPE

The mobilization of the great armies of Europe on the very eve of harvest time threatened considerable loss of the 1914 crop. Some such loss was inevitable in spite of every effort to utilize soldier labor and to grant harvest-time furloughs. With each new season of planting and harvest the problem became more and more acute as larger areas were involved in the zones of active military operations, as armies grew in size and casualties increased in number. Every device to stimulate the labor contribution of noncombatant populations was resorted to and every attempt made to divert energy from nonessential or less essential activities to those of enlarging as much as possible the home supply of food and other agricultural war materials. However, the demands of munition works, ship building or repairing, the transportation of troops and materials, the building of cantonments and the like, also created a strong pull of man power away from agriculture. In England, for example: "By the beginning of 1917, some 250,000 agricultural laborers had joined the army and a very large number had been attracted away from farm work by the high wages which were to be obtained in munition factories, in the building of camps and aerodromes, and in other occupations connected with the war. It is small wonder that the year 1917 saw state control substituted for the

system of *laissez faire* in the sphere of British agriculture."[1]

Whatever improvement in conditions state control may have introduced, however, it was barely possible for Britain to maintain the volume of her agricultural production under the terrific strain of the war she was waging. Some shifting to the more essential lines like wheat and oats could and did take place. But 1916 and 1917 were by no means good growing years and the total yields were hardly up even to those of 1914. As for live stock, cattle numbers were maintained, but those of sheep fell off a little and those of swine considerably.

When such difficulties were encountered in maintaining agriculture in the relatively small place which it occupied in the economic life of Great Britain, the task would naturally be yet harder on the Continent, where agriculture was relatively more important and in some regions even a dominant calling. French wheat production in 1917 was less than 50 per cent of that in 1914, and oats and rye were down about one-fourth. Germany declined 44 per cent in wheat production in the three-year period, 33 per cent in rye, and 59 per cent in oats. Italian wheat production dropped from 214.4 million bushels in 1913 to 140 million in 1917, and corn production from 108.4 million to 82.8 million bushels.

The story for Belgium, Austria-Hungary, Roumania, and other warring countries was as bad or

[1] Lennard, Reginald, English Agriculture During the War: Jour. Political Economy, October, 1922.

worse. For several of them (and also Russia) no figures are available in 1917, but it is a matter of common knowledge that the food surplus of central and eastern Europe ceased to exist and actual deficits were created by the enlarged rate of consumption and waste incidental to military operations. The small gains among noncombatants (Spain, for example) were by no means comparable to the large losses elsewhere. In live stock also declines were marked, particularly in sheep and swine. Some of the neutrals were hit as hard as the warring nations, as witness the drop from two and a half millions to two-thirds of a million of swine in Denmark from 1914 to 1918.

Everywhere the war increased the dependence of Europe upon outside sources of supply. This demand tended to converge upon the United States and Canada most intensely because of the difficulties of transport from more distant producing areas.

II. DIFFICULTIES OF OCEAN TRANSPORT

Everyone who read the papers during the years from 1914 to 1918 knows that the war quite thoroughly disrupted shipping services upon the Seven Seas. Shipbuilding efforts had to give priority to naval construction even at the expense of mercantile needs, and vessels had to be diverted from cargo carrying to the transport of troops, patrol service, or other military uses. Worst of all was the destruction of tonnage (with incidental loss of cargo) by commerce raiders, particularly the German sub-

marines. These losses were inconvenient from the start, but when at the end of January, 1917, the policy of unrestricted submarine warfare was authorized from Berlin the losses became appalling. In February Great Britain alone lost 500,000 tons of shipping. Altogether the allied and neutral countries lost over 12,000,000 tons by the close of 1917. This amounted to nearly 30 per cent of the available total at the opening of the war. Even though feverish rebuilding made good a part of the loss, there was at best considerable lag, thus requiring the greatest possible conservation of effort in securing the delivery of bulky agricultural imports.

Under pre-war conditions Europe bought food and textile materials where they could be procured most cheaply; under war conditions she sought them from the nearest available source regardless of price. Ships were taken off the accustomed routes to Australia, India, and Argentina, whence England had been securing much of her wheat, and put on the route to North America. This was not solely to save the time of the cargo carrier, for the wheat ports of Argentina are actually closer to England than some of the American ports. It was also to simplify the task of naval convoy by concentrating trade in one great highway of transport. The fact that we were ourselves in the war whereas Argentina was not, tended also to throw the trade more fully into our hands. A few significant figures of British trade well illustrate this shift. (See also figs. 10, 11, and 12, pp. 48, 49.)

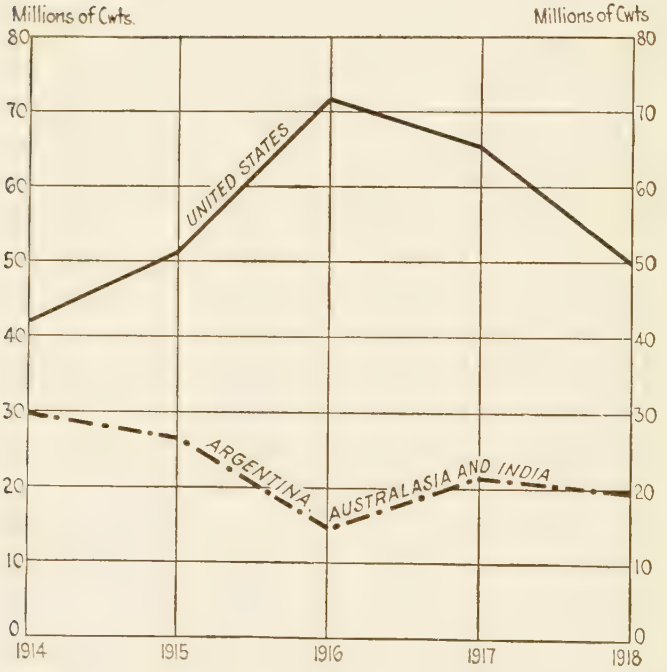

FIGURE 10.—BRITISH IMPORTS OF WHEAT AND FLOUR, 1914–1918.

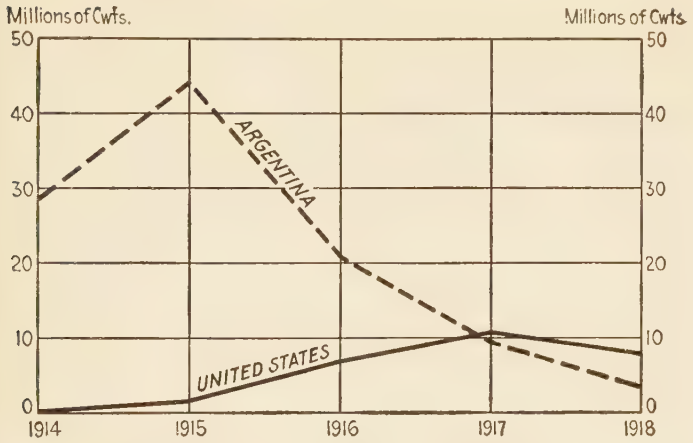

FIGURE 11.—BRITISH IMPORTS OF CORN, 1914–1918.

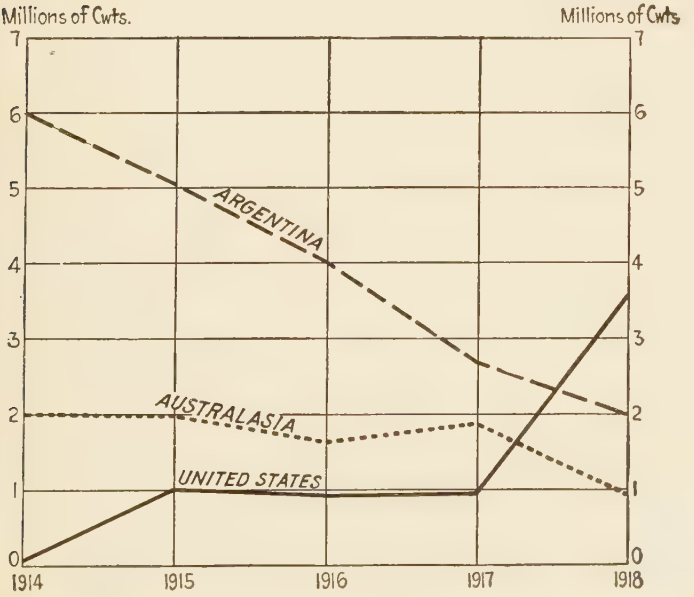

FIGURE 12.—BRITISH IMPORTS OF REFRIGERATED BEEF, 1914–1918.

SOURCES OF SPECIFIED BRITISH FOOD IMPORTS, 1914–1918 *

	1914	1915	1916	1917	1918
Wheat and flour:	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*
United States...	41,939,483	51,010,680	71,741,390	65,377,442	49,706,360
Argentine Republic.....	6,578,038	12,279,611	4,519,589	6,722,822	14,391,066
British India....	10,710,706	13,967,889	5,616,067	2,746,366	719,594
Australia.....	12,459,094	182,800	4,395,953	11,815,783	4,345,783
Maize:					
United States...	232,925	1,695,300	6,991,800	10,670,300	7,921,277
Argentine Republic.....	28,642,884	44,152,400	20,843,700	9,578,200	3,584,000
Chilled and frozen beef:					
United States...	87,589	1,001,351	930,207	938,126	3,583,549
Argentine Republic.....	5,993,126	5,096,461	4,037,678	2,671,132	1,977,267
Australasia.....	2,027,681	1,972,164	1,640,579	1,867,798	936,042

* Annual Statement of the Trade of the United Kingdom.

III. INCREASED EUROPEAN BUYING IN AMERICA

The figures just presented show an increased use of our market by the heaviest of our European buyers because of its nearness and greater ease of transport protection. We had previously noted the increased dependence upon the United States due to the impairment of European production. The fact also that we were making large financial advances to the Allies accentuated this tendency. The manner in which all these forces operated to increase European buying in America may be clearly seen from a few comparisons, it being borne in mind, of course, that all this represented a highly artificial movement and not a settled trade development.

Russian wheat and rye coming to the United Kingdom had averaged nearly 16.3 million hundredweights during 1909–13, but dropped to an insignificant figure after 1916, whereas similar imports from the United States averaged 18.8 million hundredweights in the five pre-war years and rose to an average of 49.4 million hundredweights during 1916–18. Danish bacon, which made up 53 per cent of British bacon imports in 1914, dropped to one-fifth of one per cent in 1918, while bacon from the United States rose from 30 per cent in 1914 to more than 82 per cent in 1918. France had imported 5 million quintals [1] of wheat on the average during the years 1910 to 1913 from Russia, Roumania, and Germany (presumably of Russian or Roumanian origin) and only 0.9 million quintals from the United States. By 1918 imports from these European sources had been cut off and imports from the United States amounted to 4.3 million quintals. Italy likewise was quite seriously affected by the drying up of those sources in the Danube basin and Russia to which she had previously turned for a considerable part of her cereal needs. In the four pre-war years she averaged 12.7 million quintals of wheat imports from Russia and Roumania and only 0.7 million from the United States. In 1915 she drew 16.1 million quintals from the United States; in 1916, 13.0; and in 1917, 6.7 million quintals from us and negligible amounts from previous sources in eastern Europe. This swing of Italy and France toward the United States as a

[1] A quintal equals 220.46 pounds.

buying market is vividly portrayed by the graphs in figure 13.

The neutral countries of Europe were likewise constrained to turn from their previous sources of cereal imports in Europe or overseas and to secure such supplies more largely in the United States. Since the total of such imports by several neutrals rose above their pre-war level, it appears that (as was currently asserted at the time) some of these food

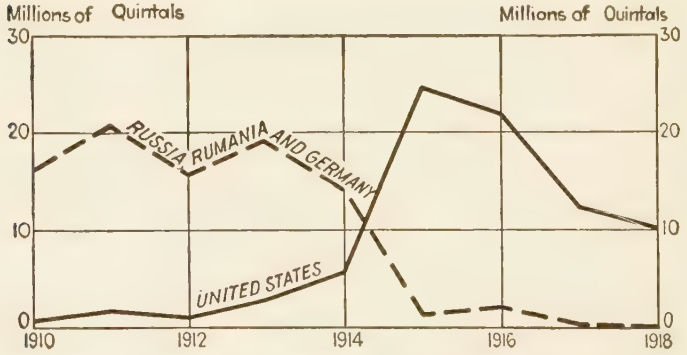

FIGURE 13.—IMPORTS OF WHEAT AND FLOUR INTO ITALY AND FRANCE, 1910–1918.

supplies found their way into the enemy countries, at least during the early years of the war. Thus, blockaded though she was, even Germany's war needs contributed in some degree to the pressure of foreign buying in America.

Europe under stress of war had returned to a dependence upon the United States for foodstuffs even greater than in the old days of the nineties. This is shown in the export figures from 1913 to 1918, presented in

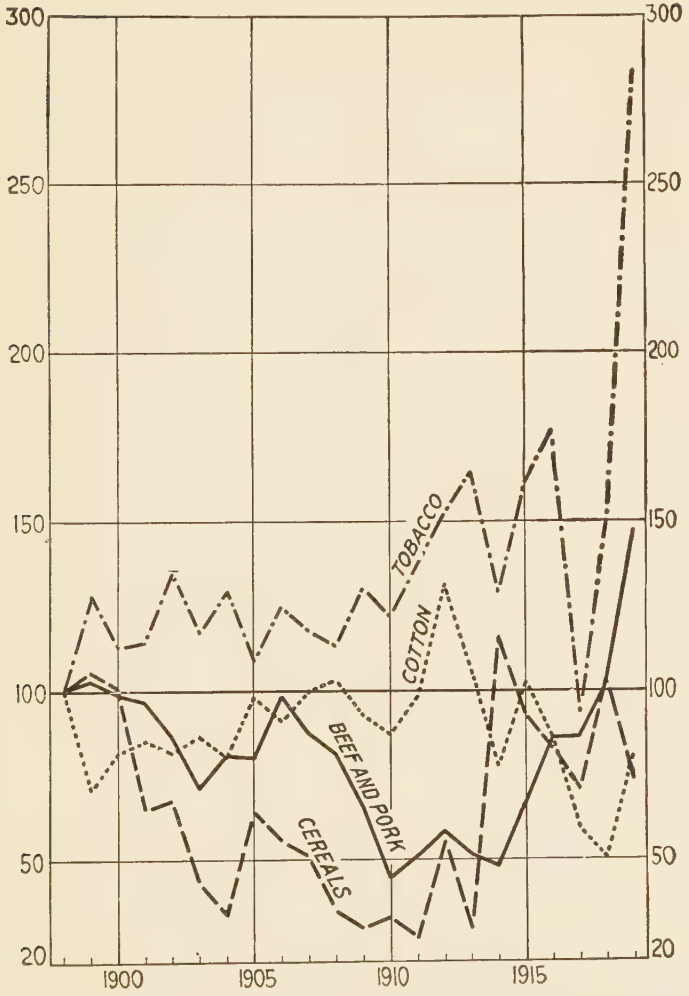

FIGURE 14.—INDEXES OF QUANTITIES OF SPECIFIED AGRICULTURAL EXPORTS, CALENDAR YEARS, 1898-1919. (1898=100).

the table below. How this sudden rise contrasts with the fifteen-year decline which preceded is shown in figure 14. This graph shows also that the war brought a further stimulus to tobacco exports but a notable slackening in the cotton movement. The latter, however, was offset in part at least by a marked increase in exports of cotton manufactures, including explosives.[1]

EXPORTS OF AGRICULTURAL PRODUCTS FROM THE UNITED STATES, 1913–1919.*

(000 omitted)

Year ending June 30	Wheat[a]	Corn[a]	Rye[a]	Oats[a]	Beef products	Pork products	Rice
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Pounds*	*Pounds*	*Pounds*
1913	142,880	50,780	1,855	36,455	170,208	984,697	5,673
1914	145,590	10,726	2,272	2,749	151,212	921,913	5,871
1915	332,465	50,668	13,027	100,609	394,981	1,106,180	7,334
1916	243,117	39,897	15,250	98,960	457,556	1,462,697	9,506
1917	203,574	66,753	13,703	95,106	423,674	1,501,948	12,315
1918	132,579	49,073	17,186	125,091	600,132	1,692,124	11,885
1919	287,402	23,019	36,467	109,005	591,302	2,704,695	12,892

* Commerce and Navigation of the United States and Monthly Summary of the Foreign Commerce of the United States.

[a] Including flour and meal on grain basis.

IV. RESULTANT ADVANCE IN PRICES

Europe was buying staples under the spur of grim necessity for the prosecution of a war to the death.

[1] Numerous other allowances need to be made in examining figures of such a disturbed period. For example, a substantial part of the European imports of foodstuffs in 1918 went for the nourishing of Americans on service in Europe and hence were not European consumption strictly speaking. The stimulating effect on agricultural exports from this country was, however, the same.

Under such circumstances purchases were financed by the liquidation of stores of wealth, at home and abroad, which had been accumulated during a generation past, and likewise by the extension of credit for whose repayment the labors of a generation or more in advance were freely pledged. Demand of this sort shows no tendency to slacken as prices advance, and in fact makes it inevitable that such an advance shall take place. Without raising any issue as to the relation of currency to prices, it is apparent that Europe's enlarged buying in the United States drew forth enlarged supplies only under conditions of increasing cost due to the use of inferior lands, the bidding up of labor rates in competition with other users of labor, the advance of fertilizer costs, and the marking up of implement prices, horses, and other expense items. Competition for both capital and labor was markedly increased after our own entry into the war, and the whole trend of speculative activity under the newly coined epithet "profiteering" accelerated to the fullest degree the advance agricultural prices.

Cotton, which averaged below 11 cents a pound (farm price, December 1) in the ten pre-war years, averaged nearly 28 cents during the last two years of the war. It was freely predicted that wheat would go to $3.50 or even $4.00 a bushel, and this quite conceivably would have happened had not the price been pegged at approximately two and one-half times the pre-war level. The rate at which individual prices rose varied widely both in time and amount. In a general way, however, it may

be said that the advance in agricultural prices tended to precede somewhat the advances in the prices of things which entered into the farmer's cost of production. Farming tended, therefore, to show a profit in 1915 and even more distinctly so in 1916 and 1917, thus having a markedly stimulative effect upon the farmer. Furthermore, in view of the fact that farmers are notoriously lax in the adjustment of their farming operations in the light of careful analysis of expenses to be incurred during the productive period, there was a noticeable tendency for production to be expanded even after net profits were dwindling. Doubtless, in this connection many misleading conclusions may be drawn from the mere comparison of prices current at given periods. Even where general prices had risen as far as agricultural prices at a given moment, it is probable that there was a differential advantage to the farmer owing to the fact that there is a longer lag between the period of outlay and of return in agriculture than in many other lines of production, and to the further fact that the farmer was to a very considerable degree increasing his output by the more intensive use of equipment and labor already available within his own business organization.

At all events, it is obvious that there was a marked advance in agricultural prices and that this advance was accompanied by a rapid speeding up of production. Undoubtedly the high prices were a major cause of the increased production, though other forces of course contributed. It should perhaps be added in this connection that the stimulated demand

which led to high prices did not all of it by any means come directly from war buying but was, to a considerable extent, a domestic phenomenon. Factory, shipyard, and railway workers who enjoyed full employment at high and advancing rates of wages were both able and willing to increase their purchases, not merely of the staples of existence but also of the finest cuts of meat, the best butter, and choicest fruits and vegetables, thus competing strongly with other demands in the agricultural market and contributing to the prosperity and stimulation of our agriculture. Figure 15 (p. 75) shows the upward movement of prices of several important agricultural commodities compared with the movement of agricultural prices in general.

V. EXPANSION AND READJUSTMENT OF AMERICAN FARMING

Inevitably the offer of such prices as those indicated in the preceding section must operate as a profound stimulus and directive force in agricultural production. This price motive also was considerably supplemented by the patriotism motive once we were ourselves involved in the war. "Within three days after the declaration of war the Department [of Agriculture] and representatives of the land-grant colleges and the state commissioners of agriculture initiated an agricultural war program, which, with the aid of the farmers' organizations and the agricultural press, was executed with remarkable results."[1] When fully developed, these

[1] Ousley, Clarence, Assistant Secretary of Agriculture, in an address June 21, 1918.

plans for increased production went so far as to work out the precise increase of acreage desired county by county. Furthermore, they stimulated the county-agent movement, which put an agricultural adviser in each of over 3,000 counties to assist the farmers in carrying out their program of increased production with the fullest possible success. Finally, the guarantee of a fixed price on wheat and certain representations as to the government's intention to keep hog prices at a profitable level gave a special sense of security to producers of those commodities; and in numberless instances the food administrators, local and national, exerted their influence to reassure and encourage the producer of food products whose output was regarded as particularly important.

Some results of these several influences may be measured in production statistics. Our wheat acreage rose from an average of 47.1 millions in the period 1909–13 to 59.2 millions in 1918, while oats rose from 37.4 millions to 44.3 millions; and corn, barley, and rye showed lesser increases. The years 1916 and 1917 were not in the main good crop years, which, taken with the fact that some of the newly added crop area was inferior in character, caused the total production to be hardly commensurate with the area sown. This tended to continue and even increase the pressure for more intensive effort and the greatest possible expansion of acreage. Cotton area and yield had been very large in 1914 and the price suffered a disastrous collapse in the business disruption incident to the outbreak of the European War. This was reflected in a curtailed acreage in

1915. Thereafter, however, war demands brought high prices and a steady growth in acreage which, by 1918, brought it back nearly to the high level of 1914. Tobacco was almost as much a war necessity as bread, and our acreage rose one-third from 1914 to 1918. At the same time the number of cattle increased 19 per cent and that of swine 20 per cent. The chief figures are presented below:

INCREASE OF ACREAGE OF CROPS AND NUMBERS OF LIVESTOCK DURING WORLD-WAR PERIOD

(000 omitted)

Year	Five principal cereals	Potatoes	Tobacco	Milk cows	Other cattle	Sheep	Swine
	Acres	*Acres*	*Acres*	*Head*	*Head*	*Head*	*Head*
1910–14 (aver.)	202,104	3,686	1,209	20,676	38,000	51,929	61,865
1915	217,939	3,734	1,370	21,262	37,067	49,956	64,618
1916	210,109	3,565	1,413	22,108	39,812	48,625	67,766
1917	218,622	4,384	1,518	22,894	41,689	47,616	67,503
1918	224,128	4,295	1,647	23,310	44,112	48,603	70,978

The war both revealed and exploited a tremendous reserve power for agricultural production. With relatively insignificant curtailments of production in other agricultural lines, we expanded our output of the great war essentials and even of numerous lesser products desired by our well-paid industrial workers to a truly remarkable extent. Under the stimulus of war prices and urged on by patriotic appeals, our farmers released a considerable latent capacity for

production. This capacity had not been utilized during the pre-war years simply because marginal costs were too great if production was pushed to the point of creating a surplus which then had to be exported at low prices. It is conceded of course that, particularly after we entered the war and our farm labor supply was curtailed by the drafting of men for military service, this enlarged production was secured, in part, at the expense of overwork, some impairment of equipment, and failure to maintain soil fertility. The release of latent productive capacity, however, was also a striking feature of the situation.

Aside from the mere tendency toward expansion which these figures indicate, it is to be noted also that there was a considerable redirection of agricultural effort and an adjustment upon lines quite different from those already discussed (p. 39) in connection with the type of farming which was becoming more or less established in the period just before the outbreak of the war. The war's readjustment ran in the direction of a return toward wheat farming in areas whose evolution had proceeded so far in the direction of general farming as to make wheat-growing an incidental item in their farm organization. For example, Iowa increased her wheat acreage by more than 50 per cent between 1914 and 1918; Wisconsin much more than doubled hers; Illinois rose from 2.5 million to 2.9 million acres; Pennsylvania from 1.3 million to 1.5 million; and Virginia from 779 thousand to over a million acres. Areas in the South which had not raised wheat since

the Civil War and which had followed the habitual practice of shipping in corn to feed their mules put on extensive campaigns for the raising of "food and feed crops." Corn-belt rotations which had been esteemed and followed as the indispensable basis of good farming were abandoned, and pasture areas were reduced to increase the output of corn and small grains and of the hogs and cattle that could be fed upon them.

In a word it may be said (1) that the war operated to prevent our chief competitors from maintaining their accustomed flow of agricultural staples to the European market; (2) that as soon as attractive prices were offered, our farmers promptly enlarged the surplus of cattle, hogs, cereals, dairy products, and many other commodities; and (3) in so doing they cast aside many policies of permanent farm organization, soil maintenance, or margins of cultivation which had shown indications of becoming somewhat established in the pre-war period. Since these influences did not cease with the signing of the armistice we can not complete our analysis of their significance here but must wait until we have examined the course of affairs in the immediate post-war years. This will be done in Chapter III.

CHAPTER III

MARKET BOOM AND DEPRESSION, 1919–23

We have already noted that the character of our war-time trade in farm products was determined by a European market whose consumptive demands were grotesquely enlarged by the underproduction and overconsumption brought about by intense and widespread war conditions. It was highly abnormal, also, in that European buying power was artificially enlarged by the devices of war-time finance. Transactions were not limited by the ordinary practices of payment from current income, but the accumulated wealth of the past was drawn upon and the hopes of an extended future period were mortgaged through enormous borrowing operations.

In the present chapter we shall see, first, how these abnormal conditions continued to gather force until a belated climax was reached in 1920. This will be followed by a review of the chief features of the collapse which then took place, noting particularly the difficulty of recovery and the slight benefits derived from such first-aid measures as were resorted to.

I. WAR-TIME CONDITIONS CONTINUED PAST THE ARMISTICE

In the first year and a half following the war many of the war-time forces continued to operate in the

agricultural market. The collapse of Russia had removed the largest European producer of surplus cereals. In the Danube countries also, the break-up of the large estates and the substitution of peasant cultivation had brought a lowering of productive efficiency. Considerable areas had been devastated, workers had been killed or wounded, and even at best the getting of men and horses and machinery back on the land and working at anything like their old productivity is a slow process. Production was still curtailed and transport difficulties had not yet been fully removed.

With larders bare, domestic and near-by sources of food impaired, and their people hungry and ill clothed, the warring nations presented an enormous *potential* demand for our agricultural products. Naturally, the respective governments and the private traders of all these countries exerted themselves to the utmost to convert these bodily wants into economic or market demand. Civil and military payrolls were maintained in the hope that demobilization might be effected without the shock of serious unemployment. The fact that government fiscal deficits had to be met by further borrowing during this period was regarded as a necessary evil, but the chimerical hope of vast reparation payments caused it to be rather complacently accepted by certain of the victorious countries.

Possibly for the same reason officials were not steadfastly opposed to accepting financial relief at the cost of further inflation of their respective currencies. Whether with a cold-blooded intent to

defraud the world, as is often naïvely asserted, or through grim necessity, Germany and Austria turned out a growing flood of paper marks and kroner which could be exchanged, even though at an increasing discount, for indispensable fats, cereals, and textile raw materials. Many persons could not visualize anything but an eventual, indeed a reasonably prompt, restoration to par of the currencies of the one-time powerful European empires. As long as this speculative group among both exporters and the general public were willing to absorb such currencies, trade moved in large volume.

Finally, European buying power was supported by further extensions of credit from this side of the water. The United States did not cease to lend to her erstwhile allies for some time after the Armistice was signed. The total of such loans was in fact increased by a billion dollars during 1919. Beside these government loans, however, there was another and rather surprising way in which both industrial and agricultural exports were financed on credit. "American business men exported commodities on what were presumed to be short-term commercial credits. The exporters, as is the custom, financed their needs, pending the receipt of payments from abroad, by borrowing from the commercial banks. . . . Europe was thus enabled to get the goods required, and American business received a great stimulus, one of the results of which was rapidly mounting prices. . . . It developed, however, that in consequence of Europe's inability to pay, these loans of bankers to American business men had

to be renewed again and again—in fact indefinitely."[1]

Nor did the American business man lack encouragement from high quarters in following an optimistic course. Government officials and commercial editors alike were industriously seeking a mere physical measure of Europe's food and raw-material deficits and urging our people to seize the golden opportunity of supplying these needs. The prevailing note among both financial writers and professional economists was that of a permanent maintenance of the war or post-war price level.[2] Besides government and regular trade buying emanating from European sources, our own government and various charitable agencies entered the markets of the United States to purchase food supplies for various relief undertakings abroad, and the farmer gave trainloads of grain outright for export to the stricken areas of Europe. The former tended to support prices by the enlargement of demand and of course made its contribution to the export figures. The latter also supported the market by reducing the surplus and, by a like amount, augmented the export figures.

[1] Bass, J. F., and Moulton, H. G., America and the Balance Sheet of Europe, p. 304.

[2] "As far as the great mass of the community was concerned, they continued to live entirely in the unhealthy atmosphere created by the war. The country was, to all appearances, in the heyday of its prosperity. There were a lot of false prophets about, too, who kept assuring the public that the war had entirely changed the situation of the world, and never again would there be a return of the state of things existing before that great conflict occurred to upset the normal course of affairs. A list of the names of those who talked thus, with their confident predictions, would make interesting reading today."—*The Financial Review, 1921, p. 5.*

These abnormal factors in agricultural commerce and practically throughout the economic system continued through 1919 and well into 1920.

II. THE PEAK OF POST-WAR PROSPERITY

Persons who predicted a brilliant period of agricultural prosperity in America for ten years after the war because "we would have to feed Europe" could point to actual conditions up to about July, 1920, as an apparent confirmation of these superficial views. In spite of large crops, prices continued to mount.[1] Domestic trade was flourishing, and exports in several commodities broke even wartime records. Farmers bought high-priced cars and trucks and tractors. They bought pure-bred live stock at prices which made sale records unheard of before. In the corn belt, the tobacco country, and elsewhere formidable "land booms" developed.

Quite generally farmers were encouraged in these steps by the editors of their agricultural papers. Likewise, professors of animal husbandry, extension directors, and certain agricultural college deans, continued even at this juncture to preach their gospel of "more and better live stock" as the panacea for

[1] The prospect in the spring of 1919 had been for a record-breaking crop of wheat, and Congress appropriated the sum of 1 billion dollars to carry out the terms of the price guarantee. Later growing conditions, however, were distinctly less favorable and the final harvest figures were only a little above 1918 and somewhat less than 1915. The market price readily maintained itself above the guaranteed minimum to the close of the price-controlled period, and ranged from $2.81 to $3.45 per bushel in the Chicago market during May, 1920.

all agricultural ailments and that "farm land in our state always has gone up in price and always will."

While these conditions maintained such a favorable appearance on the surface, however, certain elements of great weakness were developing underneath. In discussing them, we must glance first at the general situation existing in business as a whole and then at certain particular features that apply especially to agriculture.

The early part of the year 1920 marked the culmination of a general business cycle. War-time prosperity had, after brief hesitation at the close of 1918, passed on into a post-war boom. Industry turned from the task of supplying war needs to that of making good such deficiencies as consumers had suffered during the war period, and of gratifying a general desire to celebrate the return of peace and the end of savings drives, and to cash in on war wages and profits. Returned soldiers with their back pay and discharge bonus were free spenders. Industrial workers, finding employment steady and wages holding up or even advancing, were satisfying their wants to an unusual degree. The accumulated savings of several years of forced thrift were in many cases released by the resale of Liberty Bonds, the proceeds going quite largely into consumptive expenditures. These and other inflationist tendencies were promptly reflected in advancing prices and a period of intense business activity culminating in the crisis of May, 1920.

Without attempting any analysis of the forces which led to the general business collapse of that year and the ensuing depression, we will now turn

to the particular consideration of what happened in the farmer's market both before and after the crisis.

Crop acreages and numbers of live stock in 1919, almost without exception, exceeded the volume with which we had met the war needs of 1918. This further speeding up of production is shown in the table below. The year 1920, on the other hand, shows decreases in some lines of production, but there were also increases in other lines, such as tobacco and corn acreage and in cotton, rice, and other products not shown in the table. Except in the case of sheep and swine, production in all these lines was still distinctly above our pre-war level. The complete reliability of the live-stock figures moreover is open to question. Undoubtedly some movement toward

INCREASE OF ACREAGE OF CROPS AND NUMBERS OF LIVE STOCK, 1910–1920

(000 omitted)

Year	Five principal cereals	Potatoes	Tobacco	Milk cows	Other cattle	Sheep	Swine
	Acres	*Acres*	*Acres*	*Head*	*Head*	*Head*	*Head*
1910–14 (aver.)	202,104	3,686	1,209	20,676	38,000	51,929	61,865
1915	217,939	3,734	1,370	21,262	37,067	49,956	64,618
1916	210,109	3,565	1,413	22,108	39,812	48,625	67,766
1917	218,622	4,384	1,518	22,894	41,689	47,616	67,503
1918	224,128	4,295	1,647	23,310	44,112	48,603	70,978
1919	226,250	3,542	1,951	23,475	45,085	48,866	74,584
1920	217,342	3,657	1,960	23,722	43,398	39,025	59,344

the reduction of flocks and herds was under way, but the first effect of such a liquidation movement was, of course to throw even larger numbers of animals on the market. Live-stock prices had reached their peaks in 1919 (see p. 74) and suffered some decline under the heavy receipts of the latter part of that year, in which total slaughter under Federal inspection broke all previous records, with 70.7 million head against 56.3 million head in 1913.

Obviously such conditions of supply must soon pile up surplus stocks unless trade forces move the products promptly into consumption. Subsequent events showed clearly that this necessary absorption was not taking place in the latter part of 1919 and in 1920. This situation, however, was in large degree disguised at the time. For nearly a year after the Armistice food products moved into trade channels and forward toward the ultimate consumer in such a way as to prevent an immediate appearance of glut. Speculative zeal resulted in the piling up of a "wall of lard" and a mountain of bacon, hams, and other products in the neutral countries and on the frontiers of Germany and other central European states long before these countries were actually opened to trade. Those who believed that there would be a great commercial opportunity in feeding Europe hastened to put themselves in a position to supply this large anticipated need.

But when it came to getting these stocks distributed and paid for by ultimate consumers, so that retailer, jobber, wholesaler, and importer were in position to settle for past purchases and to arrange

for further transactions on terms acceptable to the exporters in this country, then the impaired purchasing power of the European population began to appear.[1] At the same time stocks of goods which had accumulated in Argentina, Australia, and other relatively distant sources of supply during the transportation stringency (p. 46) now began to move

[1] Many tons of food spoiled in storage and much was also reexported. In February, 1920, the Institute of American Meat Packers made the following statement:

"Since the last regular monthly review of the meat and live stock situation by the Institute there has been no adequate improvement in the foreign exchange situation. This accounts for the present practical cessation of pork exports. Beef exports ceased some time ago. The following is a résumé of the meat situation abroad:

"United Kingdom—It is estimated that there are approximately 275 million pounds of meat in the United Kingdom and afloat, in the hands of the British ministry of foods, their appointed agents, wholesalers and retailers. This is equivalent, at the present rate of consumption in the United Kingdom, to nearly seven months' supply. It is further estimated that England is receiving supplies of English, Irish, Danish, and Canadian bacon very nearly adequate to present consumption.

"Germany —Agents in Germany of American packers who have meat there are unable to sell it and are, therefore, forced to put it into cold storage, since the German government is unable to make purchases in acceptable currency. The government recently made a proposal to pay for meats in German treasury notes running over a period of five years, which, of course, is unacceptable.

"Holland—Sales in Holland have practically ceased. The situation there may be gauged by the fact that in some quarters the return to America of lard and boxed pork now in Holland has been recommended.

"Scandinavia –It has been hoped that the decision of the allied council to allow the Russian cooperative societies to import would enable the consignments at Scandinavian points to be sold for shipment into Russia, but representatives at Copenhagen have cabled that there is practically no change in the situation, and no boxed meats or lard are moving."

forward to the world's markets and to compete with our products. Finally, there were considerable government stores which had been laid by for the needs of the enormous military establishment in case the war had lasted beyond 1918. When, in the latter part of 1919 and in 1920, the liquidation of such stocks was undertaken, this surplus fell upon a market already congested and on the brink of collapse.

Unfortunately no statistical measure which is complete and reliable can be made of actual absorption or concealed accumulation of such stocks. To be sure, the visible supply of grain had been very large in 1919 and was still heavy in the early part of 1920, and storage holdings of meat products for which figures are issued also loomed large. For example, storage holdings of lard on July 1, 1920, were 193 million pounds against 87 million on the same date in 1916, while pork stocks were 982 million in 1920 as against 644 million in 1916.[1] But such figures by no means tell the whole story of congested supplies. They do not tell, for instance, how much lard and flour and canned goods and fabrics and clothing had been accumulated in the hands of manufacturers and wholesalers, jobbers, retailers, and private consumers.

The proof of the pudding is in the eating, and whether supplies are in fact redundant appears conclusively only when the market finds whether a sufficient demand comes forward to absorb them. We must therefore examine what was happening on

[1] Bureau of Agricultural Economics.

the demand side of the market. Events proved that market demand was less and less adequate to absorb current and accumulated supplies as the year 1919 passed on into 1920. The dramatic event which put the whole situation to the test came in the form of a public agitation against the "high cost of living." The people had borne war prices and restrictions with reasonable good nature but looked for abundant supplies and lower prices as soon as the war was ended. When prices continued to rise during 1919 they were first mystified but soon enraged. The "profiteer" of course caught the first and hardest shock of the attack, but the demand was for drastic price cuts whomever might be hit. There was not a little popular sentiment to the effect that the farmer had profited inordinately during the war, and organized labor said bluntly that wages must go up or food come down, and that they preferred the latter.

So loud a clamor in the ear of a waning administration could not be ignored. The Attorney General launched a crusade against high prices; government stocks of food were sold in bargain-counter style through the post offices, and government wool was auctioned off at what it would bring. Both political parties pledged themselves in the conventions of June, 1920, to take effective steps to lower the cost of living.[1] Fatuous proposals of soldier settlement were advanced in many quarters.

[1] The Democratic platform said: "The simple truth is that the high cost of living can only be remedied by increased production, strict governmental economy, and a relentless pursuit of those who

In the face of all these conditions it is something of a puzzle why prices held up as long as they did. Few evidences of decline came until near the middle of 1920. Taking the monthly prices prepared by the United States Department of Agriculture (Bull. 999), we see that the crest before the decline [2] was

take advantage of post-war conditions and are demanding and receiving outrageous profits." And Mr. Cox in his acceptance speech concluded his cost-of-living pronouncement with these words: "Common prudence would suggest that we increase to our utmost our area of tillable land. The race between increased consumption and added acreage has been an unequal one. Modern methods of soil treatment have been helpful, but they have their limitations. There are still vast empires in extent in our country, performing no service to humanity. They require only the applied genius of men to cover them with the bloom and harvest of human necessities. The government should turn its best engineering talent to the task of irrigation projects. Every dollar spent will yield compensating results."

In the Republican convention Mr. Lodge's keynote speech contained the sentence: "The most effective remedy for high costs is to keep up and increase production, and particularly should every effort be made to advance the productivity of the farms." The cost-of-living plank, however, contained no specific reference to agriculture and Mr. Harding's speech of acceptance set forth the farmer's difficulties and continued: "Almost alone, he has met and borne the burden of the only insistent attempts to force down prices. It challenges both the wisdom and the justice of artificial drives on prices to recall that they were effective almost solely against his products in the hands of the producer and never effective against the same products in passing to the consumer."

[2] In all but five of these commodities this crest was also the highest price attained at any time. In the others it means the last distinctly high price before the advent of definitely and permanently lower prices. Wool had been as high as 60 cents in March, 1918, but its price had been fairly well maintained up to January, 1920, being 53 cents at that time; in the following year it dropped to 19.6. Similarly sheep had been at the peak in April, 1918 ($11.98), were $10.66 in April, 1920, and $5.11 in April, 1921. Corn had been

reached in the several commodities on the following dates:

Cattle [1]	May, 1919	Potatoes	June, 1920
Hogs [1]	August, 1919	Barley	June, 1920
Wool	January, 1920	Hay	June, 1920
Sheep	April, 1920	Corn	July, 1920
Cotton	May, 1920	Oats	July, 1920
Wheat	June, 1920	Rye	July, 1920

The index numbers for 31 farm products and for several important individual articles are shown graphically in figure 15.

III. THE COLLAPSE OF 1920

Near the close of May, 1920, a prominent New York financial writer in a newspaper interview predicted the continued rise of food prices. "Assuming a free market," he said, "I should not be surprised if wheat sells as high as $5.00 per bushel on the Chicago Board of Trade during the coming twelvemonth."[2] In April, 1921, not quite twelve months later, the spot price of contract wheat on the Chicago Board reached a low point of $1.23\frac{3}{4}$. After slight recovery during May and June the downward movement was resumed, touching $1.00\frac{1}{2}$ in November, 1921.

$1.912 in August, 1919, as against $1.856 in July, 1920, and $0.622 a year later. Barley and rye had been at the absolute peak in April, 1918.

[1] Cattle and hog prices had secondary crests in June and September, 1920, respectively.

[2] Marsh, A. R., The Farm Crisis and the Fear of Food Shortage: New York World, ed. sec., May 23, 1920.

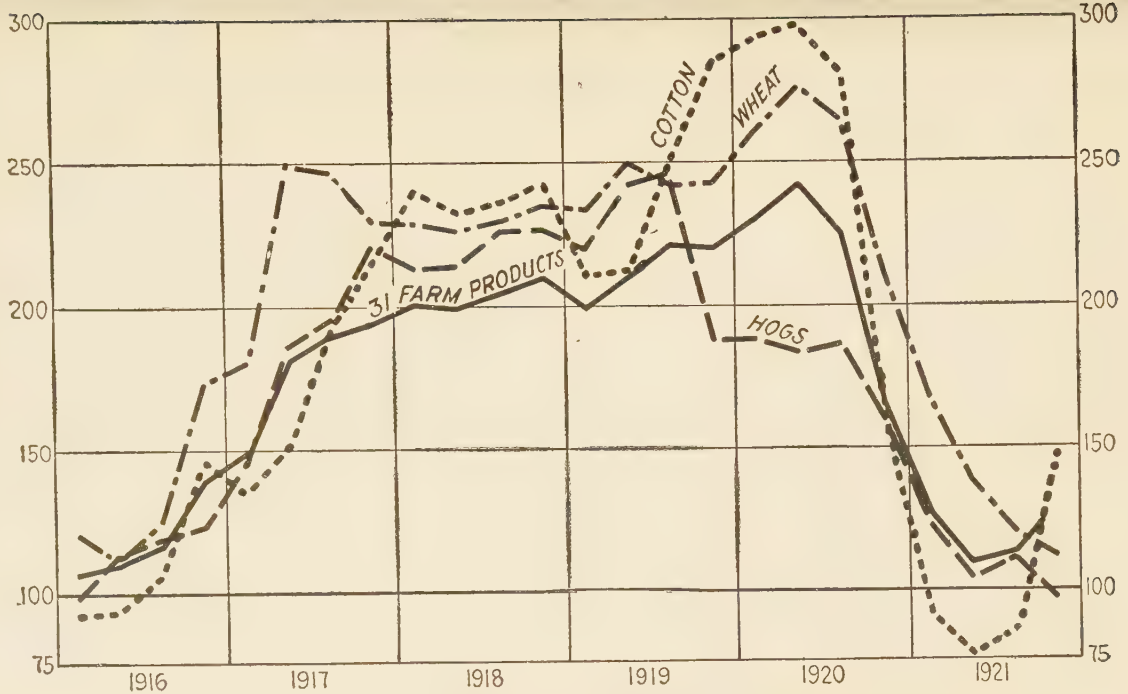

FIGURE 15.—INDEXES OF FARM PRICES, 1916–1921 (Aug., 1909–July, 1914 = 100).

Between the middle of 1920 and the middle of 1921 agricultural prices as a group suffered a precipitous fall practically to their pre-war level. (See fig. 15.) The general business conditions which paved the way for this decline have already been discussed. The whole episode emphasizes the fact that economic demand involves psychologic and financial considerations and not merely physical measures of human need. In 1920 we changed from a "sellers' market" to a "buyers' market" not because people had ceased to crave food and to desire raiment but because domestic buyers were well supplied in the face of continued heavy production, whereas foreign demand was faltering for financial reasons. There were certain peculiar factors at work in this collapse which are not ordinarily present in periods of business decline. With the cessation of our government's credits to Europe, which had played so important a part in European ability to purchase here in 1919, the whole burden of financing European purchases fell upon the exporters and their bankers. But, as already shown, the credits extended by the export interests had reached enormous totals by the middle of 1920, and it was becoming painfully evident that Europe was not able to meet these obligations as they matured.

With the crutch of government loans taken away, trade had to stand or fall according to the power of the buying country's industry to produce and export a surplus with which to pay for imports. European production, though showing some increase under the stimulus of post-war inflation, had proved insufficient

to provide the means of liquidating the import credits as they matured; and, at the same time, inflation and the failure to balance budgets had seriously disorganized the exchanges. The basis of European credit was therefore undermined and, in consequence, European merchants became but weak competitors in the markets where our agricultural products sought a profitable sale. Since, as has been shown above, these products continued to come forward in mighty volume, it was inevitable that prices should fall both fast and far. With sellers unable to exercise control over their supply, there was nothing to cushion the shock till prices hit the rock-bottom of Europe's buying power.[1]

Many persons to whom economic principles seem both mysterious and sinister have found it a grim paradox that the fall of farm prices has been ascribed to the collapse of European demand at the very time when the volume of agricultural exports was breaking all records and that impoverished farmers have had to sell their wares at prices ruinously low to an unprecedentedly affluent American industrial population.

The simple fact is, of course, that the mere *volume*

[1] The effects of this general European situation were, of course, not felt by agricultural commodities alone. But the industrially organized producers of other raw materials (such as copper) and of manufactured goods had a power of adjusting production more promptly to changing conditions than farmers have. This, taken with the fact that several of our chief agricultural products depend more on the European market than do most classes of our manufactures, goes to explain the more severe and prolonged depression in agricultural prices. Poultry and dairy products, not on an export basis, held up relatively much better.

of European exports has been large only by virtue of the fact that we have continued to heap wares upon the bargain counter no matter how much the price might decline. Had we offered goods entirely gratis, our export figures would have been even more impressive but would not have signified a satisfactory demand. With supplies short and purchasing power strong, enlarged volume of trade goes with rising prices; but with enlarged supplies and weakened purchasing power, raising the volume of trade to the magnitude necessary to move all the product depresses the prices to the level of the weakest buyer. Hence ruinous prices persisted as European affairs went from bad to worse and large acreages and favorable seasons continued in America. As for the home market, domestic consumers have not needed to bestir themselves to competitive bidding in the face of a tremendous export surplus. Even with a commodity like butter, not definitely on an export basis, any considerable stiffening of prices in response to the strength of domestic demand promptly drew Danish or Dutch supplies away from their customary European markets, many of whose patrons since the war have had to eat margarine or even refined lard in place of butter.

IV. INABILITY OF AGRICULTURE TO RECOVER, 1921–1923

It is no part of the purpose of the present volume to attempt to say why European reconstruction has made so little progress. We may, however, suggest a few reasons which explain the failure of our agri-

cultural industry to adjust itself to conditions as they have been during the last two years.

First among the reasons for our failure to adjust supply to curtailed demand has been the weather. It was not unreasonable to expect that after three successive years of good growing weather, a crop failure might be just around the corner. Such a bad season had served the farmer a shabby turn often enough in the past; here was the time when moderately bad crops would be good luck. But, by and large, the seasons of 1921, 1922 and 1923 have maintained or surpassed the production levels of 1918, 1919 and 1920. Acre yields of nine principal

YIELD PER ACRE OF PRINCIPAL CROPS, 1916–1923

Year	Corn	Wheat	Oats	Barley	Rye	Potatoes	Hay	Cotton	Tobacco
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Tons*	*Pounds*	*Pounds*
1916	24.4	12.2	30.1	23.5	15.2	80.5	1.64	156.6	816.0
1917	26.3	14.1	36.6	23.7	14.6	100.8	1.51	159.7	823.1
1918	24.0	15.6	34.7	26.3	14.2	95.9	1.37	159.6	873.7
1919	28.9	12.8	29.3	22.0	12.0	91.2	1.52	161.5	751.1
1920	31.5	13.6	35.2	24.9	13.7	110.3	1.51	178.4	807.3
1921	29.6	12.8	23.7	20.9	13.6	91.8	1.40	124.5	750.0
1922	28.3	13.9	29.8	24.9	15.5	105.3	1.57	141.5	736.0
1923	29.3	13.5	31.8	25.1	12.2	108.1	1.48	128.8	810.0

field crops presented in the accompanying table show not a single drastic break in harvest returns, though oats and barley had one rather poor year.[1]

[1] For purposes of comparison it may be mentioned that the several crops had in previous years registered the following low figures of yield; corn 17 bu. (1901), wheat 11.7 bu. (1900), potatoes 66.3 bu. (1901), hay 1.14 tons (1911), tobacco 658.5 lbs. (1889), cotton 154.3 lbs. (1909).

Cotton has been the outstanding exception to the general condition of high yields, and the cotton grower has prospered above most of his brother farmers. In live-stock raising, too, conditions have on the whole been favorable to large production. There have not been notable outbreaks of hog cholera or foot-and-mouth disease; devastating winters and droughty summers have been absent from most parts of the range country; and feed has been abundant in the general farming sections.

Secondly, as was pointed out in Chapter II, the war had advanced the margin of cultivation, both extensively and intensively. These new margins had been adjusted to conform to the intense demand and artificial purchasing power of Europe and of other countries as they reacted to the European disturbance. Naturally, every person who had been affected by this economic readjustment was anxious to see it maintained on the new plane, since any scaling downward would impair his economic position. If he had extended his plant during the war, he desired to operate at capacity and to earn satisfactory returns upon his investment. If war prices had been capitalized into high land values, the man who had held his property did not wish to see paper profits disappear, and the man who had bought at the high level needed the maintenance of a prosperous market if he was to pay for his property out of earnings. Those who had opened new communities in regions not profitable under pre-war schedules of demand and prices were unwilling to abandon their newly established homes and see the fruit of

their labors and their savings slip away from them. Finally, many rural communities had embarked upon ambitious public-building programs, hard roads, new bridges, courthouses, and consolidated schools. To their heavy interest and instalment-purchase payments, high rents, and domestic obligations, they had added tax burdens of unprecedented weight. In some Iowa communities this tax item rose to $5.00 per acre and occasionally even more.

Thus saddled with high fixed charges, the business of farming faced a crisis with which its peculiar form of organization particularly unfitted it to deal effectively. Steel, tobacco, textiles and railroads long ago organized under the corporate form in units large enough to enable economic generalship to be brought to bear on the conduct of the business as difficulties arise from time to time. But farming still is run on lines of individual enterprise where it is "every man for himself and the devil take the hindmost." The single individual reacts to falling prices by redoubling his effort, thereby enlarging market supplies and continuing or even aggravating the downward tendency of prices. If corn is cheap the farmer with rent and taxes and interest to pay foresees the need of more bushels with which to pay these bills. This vicious circle will be discussed further in the following section. But it is evident that we have had in it one of the chief factors in the inability of agriculture to recover since the price collapse of 1920.

It should be remembered also that, with each

farmer feeling himself powerless to grapple with the gigantic forces of destruction which had overtaken him, there was a general turning to powers outside themselves. Attempts were made to build up organizations capable of bringing group action to bear upon the farmer's business problems. Some of these were general farm organizations; others were particular commercial agencies chiefly cooperative in form. In addition, both directly and through these organizations, appeal was made to the government for aid to the farmer's cause. Without regard to the nature of the organization through which it was sought, we may well examine the chief remedies proposed or tried.

V. SIMPLE RESTORATIVES TRIED IN VAIN

It is not strange that, with the popularity which the protective tariff had always enjoyed in the political medicine chest of the United States, it should have been brought out to heal the farmer's ills in 1919 and since. Nor has it been entirely without efficacy. Several sore spots on the body of agriculture have been relieved by its application. Wool protection has been a blessed reality to the western sheep men; the wheat tariff has kept a premium on hard spring wheat; the lemon grower was saved from the black hour when Sicilian lemons shipped in ballast at negligible expense sold as far west as Kansas City. The corn tariff has held in check imports of Argentine corn on the Atlantic seaboard; bean tariffs have protected the California grower against

the Madagascar lima and the Japanese kotenashi. Cattle duties have retarded the movement of Canadian "feeders," but owing to export difficulties have probably harmed the Canadian producer seriously without greatly helping the American rancher. Butter duties, twice advanced, have quite certainly helped to support the domestic dairy market.

The disappointing feature of this rural medicine, however, lies in its after effects. Though probably quite justified as a first-aid effort it can not be regarded as a definitely curative prescription. Economically, its defect lies in the fact that any increase in prices which it effects seems to come to the producer in a diluted form and to reach the consumer as a magnified burden on his cost of living. This tends both to check urban demand and also to burden the farmer, since one farmer consumes the other farmer's product. Politically, its defect lies in the fact that, as tariffs are made, the farmer's friends in Congress must give more in added industrial protection than they get in agricultural duties. We have by way of evidence on this point the careful figures of the American Farm Bureau Federation,[1] whose verdict is that under the present tariff farmers are paying $426,000,000 a year for $125,000,000 of protection.

Another restorative of agricultural prosperity which has been much recommended during the last three years has been the lowering of distribution costs. This is admirable as far as it goes. Every dollar of unnecessary cost in the system by which

[1] Weekly News Letter, Jan. 11, 1923.

goods are transported, stored, financed, and merchandised is, if it can be found and given to producer or saved to consumer or divided between them, a true social gain. However, two circumstances have conspired to prevent any very sweeping benefit from being derived from the endeavors thus far. One is that marketing costs are so largely made up of labor charges that reductions which can be made without wage readjustments have thus far proved small. The other is that transportation costs have remained high. In part at least this is also a wage problem.

Cooperative marketing, when wisely organized and managed, holds out great promise of somewhat fundamentally overhauling the whole system in certain trade lines rather crudely organized in the past.[1] This is notably true in live stock, cotton, and wool. Unfortunately in many places there have been sizable losses to offset such gains as have been made. These losses have been due to the blundering efforts of persons who sought to make sweeping improvements in a market machinery whose workings they were far from understanding. Furthermore, the trouble has sometimes come from persons of the promotional type, who saw in the farmer's simple faith in market panaceas a rare opportunity for financial exploitation.

Even at best the possible savings in marketing would have been sadly inadequate to recompense the

[1] The movement for market reform has also led to the passage of several regulatory measures, such as the Grain Futures Act and the Packers and Stockyard Administration Act.

grower for the drastic declines in price which have taken place. Where it takes 15 cents a bushel to market grain, a 10 per cent saving (such as would be really quite an achievement in market reform) would do comparatively little to mitigate the disaster of a price fall from $2.10 (August, 1919) to 42 cents a bushel (October, 1921) as happened with corn in the Chicago market.

Many experiments looking to the improvement of agricultural distribution, however, have not aimed merely at reducing the cost of marketing but have proceeded on the theory that present middlemen are either too stupid or too lazy to find or develop a profitable market outlet where one is available. The advocates of new agencies have asserted that the newcomer could make supplies and demands strike their balance on a price level which would be satisfactory to the producer. In general they have promised him "cost of production." The method of securing it was to be found in control of a large proportion of the given commodity. So far as the writer is aware, no conspicuous successes are as yet to be credited to this type of organization, although in the case of cotton, tobacco, and certain dried fruits the strength of unified organization has apparently enabled certain groups at times to take fuller advantage of the strength of their market position.

In the long run all such endeavors come to the limitations imposed upon any sales effort by virtue of the general economic situation in which our agriculture has been placed. The fundamental difficulties of the last few years have lain in the supply

and demand ratio between an agricultural production considerably greater than the pre-war and a weak demand by import countries whose purchasing power as compared with the pre-war has been much impaired.[1] Perceiving this fact, many who have sought to minister to agriculture's ills have asserted that " the prosperity of our agriculture will return with the restoration of Europe, and not before." But time is the essence of this matter, and the farmer has exclaimed that he could not wait for the slow process of healing and permanent recovery to be accomplished in Europe. He has clamored for quick restoratives, a powerful stimulant, while awaiting the slower processes of full recovery.

Such a quick expedient has been seductively put forward in the propaganda for further extension of credit to foreign buyers. It has been urged that America could save her farming industry by restoring the buying power of Europe through some extensive system of credits upon which exports might be financed. In the last analysis this comes down to an issue of *government* credit. The business men and banks of the United States took their fill of paper marks or other credit instruments of Europe in the

[1] Two proposals looking toward adjustment on the supply side have been the reduction of corn acreage and the use of corn for fuel purposes. The fuel value of corn is not high enough to make it economical to burn except in extreme cases, hence no appreciable effect on supplies resulted. The acreage reduction campaign was frowned upon by urban advisers in general and not very warmly espoused by farm organizations or the rural press. Probably the chief impediment was the pressure on the farmer to have as large a saleable crop as possible to meet fixed charges. (See pp. 80-83.)

days when easy optimism foresaw a restoration of war-gutted Europe as swift and easy as that of France after the Franco-Prussian War. Now they are selling only to the narrow market which has cash or sound security to offer. Further credit extensions on any considerable scale must be made through government auspices if at all. This policy has had many advocates.

For example, the American Farm Bureau Federation in annual convention December 14, 1922, adopted the following resolution:

> We approve the extension of such credits as will facilitate the financing of exportation of surplus agricultural commodities through the War Finance Corporation and its successor.

This was further elaborated by their legislative representative, speaking on the Norbeck-Nelson bill before the Senate Agricultural Committee, who said in part:

> Obviously the market in Europe is open and the War Finance Corporation, if it were liberalized to extend credit to reputable foreign importers whose drafts would be underwritten by their Governments, could put the United States in the position in which we could get the share of the European wheat business in keeping with the magnitude of our agriculture. . . . The people of most of the countries of central Europe, and certainly those of western Europe, are working and must be fed. . . .
>
> Governments that have been taking full responsibility of feeding their peoples will certainly guarantee the transactions of their reputable merchants in handling this trade. Under sufficiently elastic conditions many of these merchants through their banks could beyond doubt furnish satisfactory security to swing their own operations.

The people and merchants of most of these countries are quite as honest and trustworthy as the people of the United States, only their methods are somewhat different than ours and they are accustomed to longer credits in liquidating transactions than we are. But there is little question as to their finally paying their just obligations. In fact, self-preservation being the first law of nature, these people must submit to any terms that will supply them with the basic materials of life—food and raw materials for clothing.[1]

Congress adjourned without passing the Norbeck-Nelson bill and it must be apparent that *at best such measures represent only a continuation of the emergency devices which have been resorted to for the last four years.* They are palliatives and stimulating drugs, not nourishing food or fundamental cures. Whatever the elemental honesty of the people of Europe, and no matter how dire their need, the payment of food and other subsistence bills to-day or the means of meeting credit obligations to-morrow can be provided only on the basis of a productive economic life effectively geared into the trade relations of the world.

Germany and the United Kingdom were by all odds the American farmers' best foreign customers before the war. Study of figures 16 and 17 [2] will show that even then they were purchasing a smaller quantity of our principal agricultural products than the amounts which have been shipped abroad during

[1] American Farm Bureau Weekly News Letter, Feb. 1, 1923, p. 4.

[2] Owing to a change in the method of reporting export figures since 1918 it is necessary to print the data for the period 1919–1923 in these two figures on the basis of calendar years.

the last two years. Yet these pre-war imports were paid for only by the proceeds of a flourishing industrial and commercial life which gave them a surplus of goods or services to send abroad. It was not necessary that the whole of such a surplus come to this country in direct exchange. Much of it went to

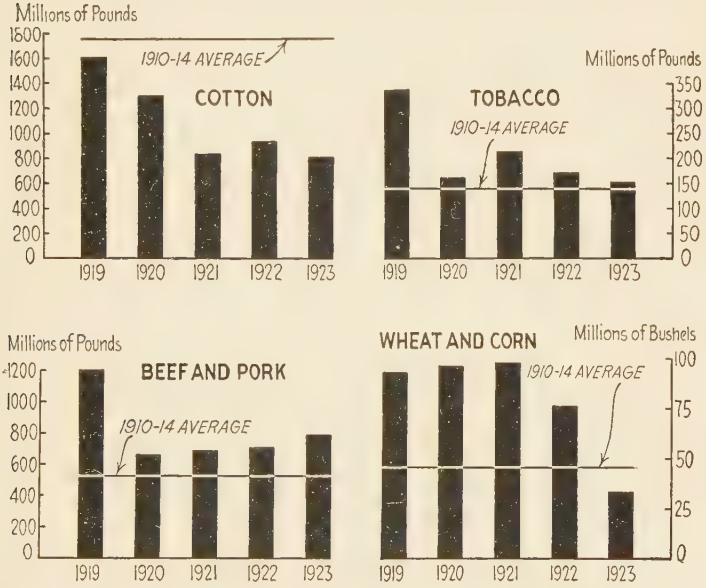

FIGURE 16.—PRINCIPAL AGRICULTURAL EXPORTS FROM THE UNITED STATES TO THE UNITED KINGDOM, 1910–1913, AND 1919–1923.

South American countries, the Orient, or Africa, as one leg of a three-cornered trade which made possible the settlement for such agricultural exports as we sold to Europe. Likewise, Russia and southeastern Europe made an excellent market for Germany's industrial products, and Germany and other Conti-

nental countries were an important factor in England's industrial and financial prosperity. This complex system of industrial trade had evolved slowly in accordance with the principle of maximum relative advantage in the various lines of production. It is not to be rudely uprooted without serious inter-

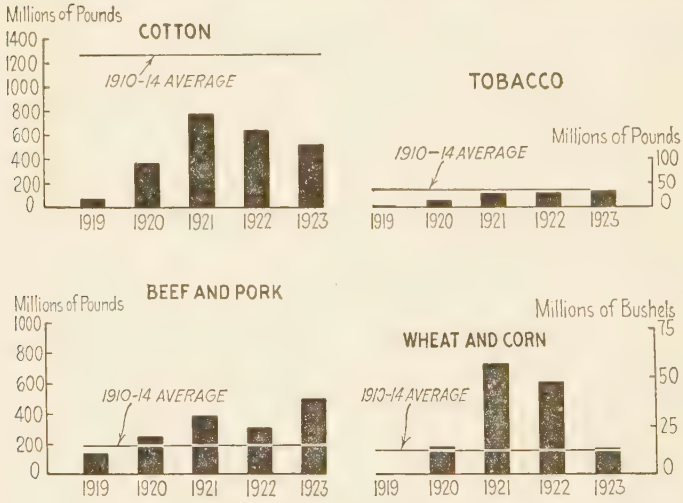

FIGURE 17.—PRINCIPAL AGRICULTURAL EXPORTS FROM THE UNITED STATES TO GERMANY, 1910–1914, AND 1919–1923.

ference with production and the whole economic organization of many nations.

VI. A SOUND BASIS FOR OUR AGRICULTURAL PROGRAM

If the world is unable or unwilling to meet the conditions which are prerequisite to starting again the wheels of industry in Central Europe, it will be perfectly futile for private or government agencies

to create any further artificial stimulus to trade by the granting of additional credits. The beautiful faith that "governments that have been taking full responsibility of feeding their peoples will certainly guarantee the transactions of their reputable merchants in handling this trade" offers little in the way of solid commercial prospect when one contemplates the bankrupt state of those governments and the necessity that they completely overhaul their whole financial system if they are to show even a glimmer of hope of stabilizing their present obligations. Baldly stated, the credit of "reputable merchants" is doing all the purchasing that can be done to-day and is decidedly superior to such guarantees as might be made by their respective governments, with the exception of Great Britain. Unless we are to feed Europe on charity and go through the forms of credit extension as a polite fiction, we must limit ourselves to such credit as can be arranged through the ordinary channels of trade,[1] hastening mean-

[1] That this fact is realized in business circles is indicated by an editorial in the *Northwestern Miller* of October 31, 1923, which says:

"The plan recently laid before President Coolidge and Secretary Wallace to provide assistance for the wheat growers by arranging for the sale of fifty million bushels of wheat to Germany is, of course, merely a thin disguise for a special tax of some fifty million dollars on the people of the United States for the special benefit of Germany and the wheat farmers. Nobody expects that Germany can pay for this wheat; even if the money were available, the Allies are preferred creditors and are in a position to make the preference effective. The question is: shall the American people, already burdened with taxes, go down into their pockets for fifty million dollars, some of which will go to the wheat farmers and most of which will go to Germany?

From the standpoint of international charity there is unquestion-

while to create underneath and about and above the "reputable merchants" the necessary conditions for building the economic structure within which they can begin again to function effectively and to employ the now disorganized resources of the country more nearly to their full capacity. On the other hand there are the possibilities of adjusting our domestic agriculture to a definitely changed trade situation.

The inescapable question for the American farmer, therefore, is this: What are the actual possibilities and prospects of creating in Europe a buying power capable of making her a better cash customer or a safe credit risk in our agricultural export market? Our agricultural industry must be soundly informed on this point if it is to direct its efforts wisely toward the return of prosperous conditions. During the past year farmers' organizations have themselves frequently stated this need. Such expressions led Senator Capper to urge an international conference on European settlements, and Mr. O. E. Bradfute, as president of the American Farm Bureau Federation, to urge some sort of government fact-finding

ably a good deal to be said for the proposal. Germany is in a very bad way, and many of its people, including the women and children, who deserve no smallest part of the blame for the late war, are literally starving. If it is the desire of the United States to come to the aid of its recent enemy, it can do so in no better way than by supplying food. The essential thing is that the people should clearly understand the facts; that if this proposal, or anything resembling it, is adopted, the wheat is given, not sold, to Germany; that it is paid for out of taxes, which must be increased to provide the added revenue required; that the principal beneficiary is Germany, whereas the advantage to the American farmer is at best slight, and is more or less problematical."

commission on Europe's condition and market prospects.

Quite generally, however, the point of view in their proposals has been, at least implicitly, that the European market could and must be made to offer a profitable outlet to our agriculture as now organized. Mr. Bradfute said in this connection: "economic isolation does not seem possible or desirable. It would require the overnight adjustment in agricultural production. This seems less possible than to bring economic order to Europe." Quite in contrast to this is the policy editorially set forth in Wallaces' Farmer of turning from the disappointments of the European market to a sturdy reliance upon domestic consumption and such incidental foreign outlets as may offer, adjusting our production intelligently to these possibilities. Between these extremes we have the proposal for a government commission for the export of wheat and other agricultural supplies, now embodied in the McNary-Haugen bill.

Our judgment on these proposals and on the whole situation should be taken only in the light of a consideration of the relation of agricultural exports to the functioning of our agriculture and to our national economic system. Conditions which are desirable or even indispensable at one period may be quite negligible or positively hurtful at another.

The earlier portion of this volume, therefore, has been devoted to a sketch of the evolution of our export trade. It may be summarized as follows:

1. Until nearly the close of the nineteenth century the United States was a land of relatively sparse population in the midst of extraordinarily rich agricultural resources.

2. Europe, on the other hand, was a land of dense population and relatively inferior farming possibilities.

3. Western Europe thus naturally became the workshop of the world, while the United States became its granary—and also its live-stock farm and cotton plantation.

4. Cheap imports of food and agricultural raw materials from America contributed greatly to the growth of European industrialism, and Europe's ready market contributed greatly to our national growth.

5. The rapid industrialization of the United States since the Civil War, the end of free land, and the growth of our own population caused domestic consumption more and more to overtake home supply in the years just before the European war.

6. As prices rose here and as our market for manufactures was more nearly filled by domestic production, Europe turned in larger measure to newer or less industrialized areas such as Argentina, Canada, Russia, and Australia.

7. Our agriculture had barely attained this better economic balance, our farmers were hardly yet accustomed to this long-deferred prosperity when the coming of the World War greatly stimulated our agricultural production.

8. War prices raised the farmer's prosperity for a

brief period still higher, only to hurl him down to severe depression through the collapse of the European market for his surplus, while yet he seemed impotent to curtail that surplus.

9. None of the devices thus far proposed have succeeded in restoring a profitable foreign market or in adjusting supplies to this impaired demand (thus bringing agricultural prices into harmony with the general price level) or in lowering production costs in proportion to existing farm price.

With these facts in mind we can now proceed to examine the industrial and financial conditions of Europe, upon which the farmer's future so intimately depends.

PART II

THE PROBLEM IN 1924 AND THEREAFTER

CHAPTER IV

FACTORS DETERMINING EUROPE'S PURCHASING POWER

Standing now upon the threshold of 1924, the farmer scans the future to see what it may hold for him of returning prosperity or of continued economic distress. The nonfarming citizen, likewise, if he has any real understanding of what constitutes the wealth of nations, must be hardly less concerned in the welfare of America's farming industry. He, too, seeks to read and interpret the signs of the future. While prophecy is by no means the purpose of the present book, it is believed that enough time has elapsed since the war to make it now possible to present a helpful and trustworthy survey of world-wide conditions which set the limits within which the future of American agriculture must be determined. Certainly, enough information is now spread out to our view to enable us to answer some of the puzzles which two or three years ago had no adequate basis for solution. Out of the nebulous possibilities of those days, certain developments have become established facts. Some of the eager hopes and simple faiths that found such wide currency in 1921 have been quite definitely shattered. The ground has at

least been cleared for a careful study of the trend of events.

In Part I we have sketched the historical background of what may loosely be called the "normal" times of our agricultural export trade. Against this background was then presented a picture of the market disturbances of the war and post-war period. This approach, it was thought, would give a better appreciation of the extent to which American agricultural development had been determined by European market requirements and thus permit a more accurate appraisal of the forces now at work.

In Part II we shall endeavor, therefore, to make a careful analysis of the factors which will determine American agricultural conditions in 1924 and the years immediately following. Applying quantitative measurement so far as possible, we shall attempt to set forth the primary facts which must govern the farmers' fortunes so far as they are determined by European conditions. The discussion will be broken up into six chapters. The first (Chapter IV) will state the general principles governing the power of European nations to purchase in foreign markets. In Chapter V the particular situation as to purchasing power in each of the chief countries, so far as figures are available, will be set forth. Since the mere fact of purchasing power does not, however, assure us that the given European buyer will purchase in our market, Chapters VI, VII and VIII will attempt to appraise the influences which would force Europe to seek our exports or would enable her to satisfy her needs more advantageously elsewhere.

The closing chapter (Chapter IX) will be devoted to a summary statement of what prospects in our judgment these facts hold out to the American farmer.

Before one can intelligently discuss the present and prospective purchasing power of European nations, there must be a clear understanding of the factors which determine any nation's ability to purchase goods at any time in external markets. What are the actual means available for such purchases of foreign goods? We shall find that there are several possible means of paying for imports—some of them of regular or permanent importance, others of but negligible or temporary significance. In the following paragraphs we shall endeavor to indicate the importance and the limitations of each.

Gold and other metallic money is ordinarily available to only a limited extent in purchasing foreign goods. British gold coins will, it is true, always be received by exporters in the United States in payment for goods, because such gold coins are directly exchangeable, by bullion content, for American gold money. As a matter of fact, however, comparatively little actual gold is ordinarily used in the purchase of goods in foreign countries. Through the mechanism of the foreign exchanges, which need not be discussed here, most international payments are effected without shipping gold. Specie, as the saying goes, moves only as a last resort. For example, if the citizens of the United States should sell to Great Britain in the course of a year a billion dollars worth of goods and Great Britain in turn should sell to the United States only 900 million dollars worth of goods, only

100 million dollars of actual gold would have to be sent from Great Britain to the United States. The balance only would need to be paid in gold.[1]

Since no nation ordinarily has any great quantity of gold which could be spared for export purposes, it would, as a practical matter, be impossible to make large foreign purchases in actual gold. A gold-producing nation can and ordinarily does regularly use some gold for the purpose of paying for imports, but a nation which produces no gold must in the long run be an importer rather than an exporter of gold. Since no European nation, with the exception of Russia, produces any gold worth mentioning, it is apparent that Europe must ordinarily have been a gold-importing area. The industrial nations—Great Britain, Germany, France, and Italy—with which this study is chiefly concerned are, in fact, customarily gold-importing countries.

During the war, to be sure, in order to meet the pressing requirements for food and raw materials, large quantities of gold were sacrificed by European nations in paying for imports. However, the limits within which gold could thus be used without disastrous consequences were soon reached. In the discussion of the effects of the war on the economic and financial status of these countries presented in Chapter V we shall show why under present conditions these nations can not now part with appreciable quantities of gold without serious economic results.

[1] For simplicity we are here omitting reference to the so-called invisible or service transactions as well as to borrowing operations.

What is true of gold is equally true of silver. The white metal is still employed in a secondary position in monetary systems, and most of the existing supplies are impounded as metallic reserve for outstanding paper notes. Under any circumstances the amount available for making international payments is thus strictly limited. And again, since the European countries produce no silver, they can not employ it in any appreciable quantity in making foreign purchases.

Paper money, except in limited quantities, is not an acceptable means of paying for imports. Under ordinary circumstances, practically no paper money is employed in meeting payments in foreign countries. The paper of foreign nations—with few exceptions—is unfamiliar money, and hence will not be accepted by the ordinary person. Moreover, it is not legal tender and hence its acceptance is not enforceable at law. But quite apart from these considerations, the value of all paper money, whether domestic or foreign, depends on its redeemability in specie. A paper note is only a promise to pay the bearer in specie on demand, and if it is to pass at face value it must be actually redeemable on presentation at the government treasury or at the bank of issue. Within the United States it is possible to exchange American paper money for gold or silver on demand—at the banks or at the Federal Treasury. But foreign money, to be redeemed, would have to be sent back to the country of its issue and there exchanged for gold. Thus, we are forced to the conclusion that the extent to which paper can be used in meeting foreign

payments will be measured by the extent to which gold can be shipped abroad.

It remains to be noted, however, that under certain conditions paper money may *temporarily* be used in purchasing goods abroad. We refer to a period of paper money *speculation* such as has existed since the war. Russian rubles, Polish marks, Austrian kronen, German marks, Italian lire, French and Belgian francs, British pounds—all have been sold in larger or smaller quantities, to speculators in foreign countries. Since the sale of German paper marks has been perhaps the most notorious example, we may as well illustrate the whole phenomenon by reference to speculation in marks.

The German gold mark is worth 23.8 cents in terms of American gold money, that is to say, its bullion content is a little less than one-fourth that of the American dollar. In pre-war days, when German paper notes were redeemable in gold, they also circulated at a value of 23.8 cents per mark. But as a result of the financial exigencies of the war, Germany, in common with all European countries, was quickly forced off the gold standard. In other words, paper money ceased to be redeemable in gold when presented to the treasury or central bank of issue, and as soon as it became irredeemable it promptly depreciated in value. However, it was popularly supposed that after the war this paper money would soon be made redeemable in gold at par. Consequently, it was reasoned that everyone could buy German paper marks or take them in trade at say 6 cents, and shortly send them in to the Reichsbank

for redemption at 24 cents, and a handsome speculative profit would be realized. Just how Germany was to make the 6 cents that she received grow to the 24 she was supposed to pay a short time later was never clearly explained. It was regarded as sufficient that Germany was a thrifty nation. In the naïve belief that a new El Dorado had been discovered, people in many parts of the world manifested a great desire to accumulate paper marks. German government officials and German business men, hard pressed for funds with which to meet the expenses of demobilization, pay reparation obligations, and procure the importation of food and raw materials that were imperatively needed naturally welcomed this new-found source of credit; and paper money was issued as fast as trade and speculation would absorb it.[1]

It is impossible to say just what total of foreign money was realized through the sale of paper marks. Some estimates run as high as four billion dollars for Germany alone, but more careful computations indicate a total of not more than half this amount. Whatever the precise figure, it is evident that the sale of paper marks was a great aid both in meeting

[1] The following quotation from Dr. Walther Rathenau is pertinent in this connection: "We were completely surprised at the discovery of this means of procuring funds abroad. After the war Germany's commercial credit in world markets was almost extinct, and we could find practically no sale for interest-bearing bonds. Then, all of a sudden, we discovered that the citizens of foreign countries who were unwilling to purchase interest-bearing bonds were nevertheless willing and anxious to buy noninterest bearing paper currency. We were thereby enabled to buy the food and raw materials required to replenish our depleted stocks."

reparation obligations and in paying for foreign imports during the years 1919–22.

There are definite limits, however, to this expedient. The phenomenon is in its very nature temporary. Speculators will purchase paper currency only so long as there is hope that it will be redeemed ultimately in gold. It has at length become apparent even to the most sanguine that German paper currency is worthless, and even in the case of French, Italian, and British paper money we may conclude that henceforth the sums that may be derived from this source will prove of negligible importance.

Checks and drafts can not be used in paying for foreign goods. For example, a check or draft on a British bank, if delivered to an American exporter, would have to be sent back by the American exporter for payment to the bank on which it was drawn. Since the American exporter seldom wants a deposit account in a European bank on which he can draw checks, he does not present it to the bank *for deposit.* He necessarily presents it for payment in a form of money that can be transferred to him for deposit in the United States. This means payment in specie.

We find, therefore, that the extent to which any form of currency can be used is dependent on the extent to which gold or silver can be spared for purposes of paying for foreign imports. And as already seen, except in gold-producing countries, very little can at any time be spared. On the contrary, nations which do not produce the precious metals must, one year with another, be importers of specie.

The exportation of goods and the rendering of services constitute the only important and regular means of paying for imports. In the case of exports the process is simple enough. If exporters in the United States, for example, send to Canada 100 million dollars' worth of manufactured goods, we can buy from Canada 100 million dollars' worth of grain and raw materials. International trade involves simple *trading.* In the above example we trade United States goods for Canadian goods. It may be mentioned again that the actual process involves the foreign exchange mechanism and roundabout as well as direct trading. But since it will not help to make clearer the fundamental problems involved, it is unnecessary to go into a discussion of bills of exchange. The essential fact is that if we export to Canada 100 million dollars worth of our goods, we can buy in Canada or elsewhere 100 million dollars worth of goods in return.

If the great industrial nations of Europe are to buy large quantities of American foodstuffs, they must be able to trade for them large quantities of exports. And in the case of these industrial nations the exports must, as a matter of fact, largely consist of manufactured commodities. As indicated in earlier portions of this book, these nations do not produce sufficient quantities of raw materials and foodstuffs to supply their own requirements. As industrial nations they must import food and raw materials and pay for them with the proceeds of exports that consist chiefly of finished goods.

It must be pointed out here that the exports of

manufactured goods from these European countries need not of necessity be exports direct to the United States. Great Britain, for example, may export textiles to Brazil and use the proceeds to pay for raw cotton purchased in the United States. Brazil in turn may pay for the British textiles by the sale of nitrate or coffee in the United States. Quite commonly we find these three-cornered trading operations. In the financing of these transactions there is again involved the mechanism of the foreign exchanges. Regardless of the roundabout obligations, however, in the final ana ysis European exports provide the means for buying food and raw materials in the United States.

We may now turn to the rendering of services as a means of paying for foreign purchases. Great Britain, Germany, France, and Italy possess large merchant fleets. If a British ship carries American goods from New York to Rio de Janeiro, for example, the British ship owner is entitled to compensation. The proceeds derived by British shipowners from the carrying trade are quite as available for buying American goods as the proceeds from the selling of exports. The carrying trade of the great shipping nations of Europe has in fact ordinarily provided very considerable sums with which to purchase American foodstuffs and raw materials. While the particular shipowner may not be interested in importing American food or raw materials, he may sell his American funds to British importers who wish to pay for goods purchased here. At bottom the process is an exchange of services for goods.

Other important services are banking and insurance. When European banks and insurance companies render services to Americans or to other foreigners they are entitled to a remuneration. The sums derived from these banking and insurance services are likewise just as available for purchasing American produce as the proceeds from the sale of exports. Fundamentally the process is again an exchange of services for goods.

Tourist expenditures and gifts of various sorts constitute still other sources of income. Whenever a citizen of one country travels in another the services rendered him there must obviously be paid for, and this sort of service has constituted a very important source of income for many of the European countries. While the American tourist, for example, does not carry American goods to Europe with him and barter them off for services rendered abroad, the funds which he uses in paying for such services do arise out of somebody's sales of goods abroad. Once more the process is at bottom an exchange of services for goods.

Among gifts, immigrant remittances ordinarily play the leading rôle in the relations between the United States and European countries.[1] A related item (now of some importance in the case of a few countries) is the payment of military allowances to foreign relatives of American war veterans. Since the war, charitable relief money has assumed large importance. What really happens in this case is

[1] As an offset to immigrant remittances may be listed the "landing money" required of immigrants coming to the United States.

that the receiving countries are donated the power with which to purchase goods.

Credit operations also play an important rôle in foreign trade. While the exportation of goods and the rendering of services in the long run constitute the only important means of paying for imports, temporarily imports may be procured by means of credit, that is, by borrowing. Concretely, for a great many years during the middle part of the nineteenth century the United States imported each year more goods than we were able to pay for either by means of exports or by the rendering of services. We were a borrower from other nations, principally from Great Britain. But each time we borrowed a hundred dollars at 5 per cent, we had thereafter to pay through the exportation of goods five dollars in interest; and if the debt were ultimately to be liquidated, we would have through increased exports to provide the funds for the purpose. The point needs stressing, for it is very commonly not clearly understood that the borrowed capital came to us in the form of increased imports of goods, and that in turn the payment of interest and the liquidation of the debt requires on our part increased exports of goods. Trading of goods is at the bottom of the process in all these cases.

Let us take another concrete example. During the war the United States loaned huge sums to European nations. These loans actually took the form of exports of food and materials for use in the war. The European nations got goods when vitally needed and gave us their promises that these goods

would be paid for some time after the war was over. Now that the war is over the European nations are confronted with the problem of finding means of paying interest on these loans of goods and of gradually liquidating the principal. And just as the loans were made in the form of goods, so also must the interest and principal be paid to us in the form of goods—or services.

Interest on accumulated foreign loans or investments sometimes constitutes a very important means of paying for imports. Great Britain, for example, during the last century built up very large foreign investments and in consequence was able to use the proceeds in paying for imports. Indeed, the interest on her past loans of goods could come to Great Britain only in the form of imports of goods.

By means of credit it is possible, under certain circumstances, for the volume of foreign trade to be for a time very greatly increased. For example, it was possible during the war for the United States enormously to expand its exports on credit. The accumulated resources of the European countries had placed them in a strong credit position. Moreover, the exigencies of the war were so great and our own interests so vitally involved that we were willing to ship on credit almost any quantities of goods required without insisting as strictly as is customary that the buyer give proof of adequate capacity to repay us. The war had to be won and ordinary conservatism in the matter of loans had to be suppressed.

But while it is true that under certain circumstances exports may be very greatly expanded by

means of credit, the very process of lending eventually halts itself. To retain their credit standing, borrowing nations must be able to pay interest. Even in ordinary times of peace, nations, like individuals, have often reached the end of their credit resources. In time of war the end is of course more quickly reached. Where huge loans are made for war purposes, the goods borrowed are largely destroyed, and thus they do not themselves provide the increased productive capacity that is necessary to pay interest. When, before the war, the United States was borrowing for railroad and other internal developments in the United States, we were constantly increasing our productive and hence our interest-paying capacity. But when the European nations borrowed from us during the Great War no such expansion of production was occurring. Consequently, while the debt obligations were being enormously increased, ability to meet these obligations was not being increased. On the contrary, it was being rapidly decreased. This is, of course, the explanation of the present difficult international-debt problem. In the following chapter we shall indicate a little more specifically the present credit status of the industrial nations of Europe.

The credit operations that we have thus far been discussing are evidenced by long-term bonds. Mention must now be made of short-time credit obligations in the form of bills of exchange with a duration of only a few months. In ordinary times exporters very commonly sell goods abroad on short-time credits, permitting the purchaser to pay for them

out of the proceeds derived from the sale of the goods. Ordinarily these transactions are liquidated promptly and do not give rise to any interest obligations since, as in ordinary domestic credit transactions, the selling price itself is fixed high enough to compensate for the delay in receiving the funds. Nevertheless, such credit operations temporarily, that is, for a few weeks or months, permit the making of purchases that can not be immediately paid for.

Under such extraordinary conditions as prevailed during the war and particularly after the Armistice, this type of credit extension played an important rôle. European stomachs were aching voids, larders were bare, shelves were empty, granaries and warehouses were vacant, and supplies of factory raw materials were depleted. If Europe was to get started on the road to reconstruction, a vast process of replenishment was the necessary first step. The goods required for the purpose were in large measure furnished on short-time credits, either extended directly by American business men or indirectly by American bankers from whom American business men borrowed the funds required to finance their operations. So huge was the volume of these credit extensions and so difficult were the problems of demobilization and reconstruction which faced Europe, that these credits could not be liquidated in the ordinary course of time. They had to be renewed again and again, and thus they became in effect long-time credits, even though evidenced still, not by bonds, but by short-time promises to pay. Since 1919, many of these loans have been liquidated

and others have been converted into long-time obligations.

It is readily apparent that this means of credit expansion can not be long continued. If the short-term business obligations are not promptly met at maturity, new credit extensions will not long be forthcoming. This form of credit may therefore be dismissed from further consideration.

The sale of corporate securities, real estate, etc., provides another temporary means of purchasing imports. Such transactions are closely akin to credit operations. In regular credit transactions European countries transfer to the United States new securities, either governmental or corporate as the case may be, as evidences of the indebtedness incurred in the purchase of goods. In the present case what happens is that already *existing* securities (real-estate mortgages, titles, etc.), are transferred from European owners to American owners. In either case it will be seen the process increases the interest obligations which Europeans must meet. Ordinarily the volume of such transactions between nations is relatively small; but during the years 1919–23 there was a very large sale of such property rights to foreign purchasers, particularly of German bonds, stocks, mortgages, and real-estate titles.

Owing to the depreciation of the exchanges, prices in terms of gold were very low in Germany and hence property could be purchased at a bargain. Looked at from the German end, this process was much the most important phase of what was popularly known as the "flight from the mark." When property was

sold to foreigners and the proceeds deposited in foreign banks, German citizens acquired balances outside the country. Another powerful stimulus to the purchase of such property was the realization by the holders of depreciated paper marks that here was a way to exchange them for something tangible before their value should completely evaporate. Large quantities of paper marks thus went back to Germany in exchange for German property. A similar movement, though less extensive, has occurred in other European countries, and it has recently been particularly pronounced in France. In the following chapter we shall return again to this phenomenon and discuss its relation to the accumulation of foreign bank balances.

In conclusion, neither gold nor silver nor paper money nor checks can provide the means with which European industrial nations may purchase American food and raw materials. Aside from what limited credit possibilities may still be shown to exist, the exportation of goods—principally manufactured goods, and the rendering of services alone can provide European nations with purchasing power in our markets. With these controlling factors in the international trade situation clearly in mind, we may now pass to a consideration of the actual ability of the leading industrial nations of the old world to purchase American goods at the present time.

CHAPTER V

PURCHASING POWER IN THE SEVERAL COUNTRIES

Having indicated in the preceding chapter the various means available to a nation for the purpose of buying imports, we are now prepared to make a specific study of European purchasing power. We shall endeavor to show, as accurately as the data will permit, the extent of the buying capacity of Germany, France, Italy, and Great Britain now as compared with the years immediately preceding the war. We shall not endeavor in this chapter to determine what precise proportion of each nation's total purchasing capacity will be expended in the purchase of agricultural imports as distinguished from other commodities. Neither will it be our purpose to consider alternative sources of food supply. The discussion of the probable bearing of the changed European situation upon the demand for American farm products is left to a subsequent chapter.

I. GERMANY'S FOREIGN PURCHASING POWER

In analyzing Germany's present ability to pay for imports, we shall discuss in turn the possible means of purchasing mentioned in Chapter IV, as follows: (1) gold and silver, (2) exports of goods and

"invisible" income, (3) additional credits. We omit paper money and checks, which were mentioned in Chapter IV, simply because, as there shown, they do not constitute independent or permanent means of payments.

1. Gold and Silver.—Germany produces practically no gold or silver, and accordingly she has always been a gold-importing nation. From 1894 to 1913 Germany's net annual imports of specie (in millions of marks), averaged as follows:

1894–1898	87.2
1899–1903	145.2
1904–1908	247.6
1909–1913	195.2

During the two decades there was not a single year in which Germany did not import more bullion and specie than she exported. A part of this went for ordinary artistic and industrial uses, but the larger part was utilized for currency and banking reserve purposes.

During the war Germany parted with a very large amount of gold for the purpose of buying war supplies. Immediately after the war considerable quantities were used in meeting reparation and other pressing external obligations; but in 1920, 1921, and 1922 the supply was reduced only slightly. During 1923, however, the German gold supply rapidly dwindled, being drawn upon for several purposes, such as (1) guaranteeing foreign credits on the basis of which imports could be procured, (2) meeting maturing bond and short-term credit obligations, (3) buying marks with a view to bolstering up Ger-

man exchange, and (4) making direct payments for imports. Much the greater part of the gold parted with during 1923 went either directly or indirectly for the purchase of imports.

The following table indicates the way in which the German gold supply has been dissipated since 1913. It is clear that the total amount now remaining is of negligible importance.

GOLD AND SILVER IN THE REICHSBANK AND IN CIRCULATION IN GERMANY AT THE END OF THE CALENDAR YEARS SPECIFIED *

(In millions of U. S. dollars)

Year	Gold	Silver	Total
1913	916	64	980
1918	539	[a] 5	544
1919	260	[a] 2	262
1920	260	(*b*)	—
1921	237	4	241
1922	241	[c] 18	259
1923 March	237	(*b*)	—
1923 June	171	(*b*)	—
1923 September	106	(*b*)	—
1923 December	111	(*b*)	—

* Figures for 1913 and 1922 are from the 1915 and 1923 Annual Reports of the Director of the Mint; for 1918–1921, from the 1919, 1920, 1921, and 1922 Annual Reports of the Secretary of the Treasury; and for 1923, from bank reports given in the Commercial and Financial Chronicle.

[a] Reichbank figures only.

[b] No comparable data.

[c] Most of it held abroad, mainly in the Netherlands.

If Germany were to part with her entire remaining gold supply, it would suffice to pay for the present low volume of imports for less than a single month.

Rather than export any additional quantities of gold, Germany should have a renewal of gold imports as an aid in the rehabilitation of her shattered financial system.

At this point mention must be made of the bank balances that have been accumulated in foreign banks by German citizens. These balances are not actual gold. They are, properly speaking, deposit accounts which, of course, represent claims for gold or other lawful money against the bank in which they are held. They have been derived in the main not through the transfer of gold from Germany to foreign banks. Rather, they have been procured through the sale of goods to foreign buyers, the sale of paper marks to foreign speculators, and the sale of German mortgages, securities, real estate, etc., to foreign purchasers.

All this is popularly referred to as the "flight of capital." The term is somewhat misleading, particularly in connection with the sale of securities, etc., for when X in Germany sells a piece of German real estate to Y in the United States, money does not "flee" from Germany to the United States. The American purchaser merely transfers a deposit claim against an American bank to the German who thus obtains a balance in the American bank.

At the end of 1922, these balances were estimated at from 1 to 4 billion gold marks. An analysis[1] of the report of April, 1924, of the Committee of Experts leads to the conclusion that on December

[1] For this analysis see Appendix D.

31, 1923, these bank balances, as distinguished from remnants of foreign investments, could not have been more than 2.5 billion gold marks. It must now be pointed out that there are definite limits to their use because, under present conditions, Germany's import trade would collapse if these balances were completely wiped out.

Under normal pre-war conditions it was possible for German importers to purchase goods in foreign countries on credit, paying at the end of 30, 60, or 90 days out of the proceeds derived from the sale of the imported goods—payment being made in bills of exchange which were redeemable in gold. But under present disturbed conditions, with bills of exchange not redeemable in gold, the exporter to Germany can not take the risk of exchange and currency fluctuations. He will, therefore, no longer sell on a credit basis; he demands cash. The balances held in foreign banks permit importers to be paid at the time of purchase. If the process is to continue, it is, of course, necessary to keep these balances replenished out of trade profits. The significant point is that the change from a credit to a cash basis has necessitated the creation of foreign balances where none were formerly required. It follows that the depletion of these balances would bring Germany to the end of her tether so far as financing imports is concerned. With a restoration of sound financial conditions in Germany, the need for *foreign* balances would of course pass away. It is conceded, however, that as an aid to the restoration of such conditions the funds now

held abroad should be transferred to Germany. In any case they can not be used up in purchasing imports without serious resulting consequences.

2. Exports of Goods and "Invisible" Income. —As was indicated in Chapter IV, the only significant and permanent factors governing a nation's ability to pay for imports are the export of commodities and the rendering of services to foreigners. In order to reveal the effects of the war upon Germany's present purchasing capacity, it will be necessary to present first the data for the years immediately preceding the war. These figures show the predominant importance of exports as a means of paying for German imports.

Foreign Trade of Germany, 1894–1913 *
(Five-year averages, in millions of marks)

Years	Imports	Exports	Trade deficit
1894–1898	4,426	3,439	987
1899–1903	5,661	4,588	1,073
1904–1908	7,584	6,112	1,472
1909–1913	9,726	8,246	1,480

* These figures, which are expressed in values rather than in volume, naturally reflect the rise in prices during the years 1894–1913. If allowance be made for change in the price level, the volume of trade during the last ten years of the period would appear nearly 25 per cent below that indicated by the value figures given above.

It will be observed from this table that the development of Germany as a great industrial nation required a steadily expanding volume of imports. These imports consisted primarily of food for the urban population and of raw materials

and partly manufactured goods required by German industries. Indeed, during the twenty-year period before the war these two great classes of imports comprised from 79 to 86 per cent of the total German import trade—the food group making up about 30 per cent and the materials group around 50 per cent of the total. The percentage of imports in these classes, moreover, had been steadily increasing and had reached the highest point in the period just before the war.

The figures in the final column of the table indicate the value of the imports that had to be paid for by means other than by exports. As previously indicated, Germany was also an importer of specie and this too had to be paid for by other means. Adding the net imports of gold and silver to the net imports of goods (in millions of marks) gives the following annual average amounts that were not paid for with exports.

1894–1898	1,074
1899–1903	1,218
1904–1908	1,720
1909–1913	1,675

Income from investments and services more than covered the adverse trade and specie balance. Detailed figures for the German income from foreign investments, shipping, banking, and other services, are far from satisfactory. It is known, however, that the net amount of German foreign investments increased from about 12 billions in 1893 to 20 billions in 1913, an average of about 400 million gold marks per year. This shows that the total income from

invisible sources must have exceeded the trade deficit by an average of 400 millions a year. The available data, however, indicate that the adverse trade balance was tending to increase faster as time went on than was the income from the invisible items.[1]

The war and the peace have wrought profound changes in Germany's international economic status. In brief, it may be said that as a result of the war and the years that have followed, Germany's invisible sources of income no longer yield her a surplus which she can use in buying commodity imports. This is accounted for by the following changes:

First, the 20 billions of foreign investments owned by Germans before the war were reduced to 2 or 3 billions by the end of 1918; and the interest income from what small amounts still remained in 1923 had almost entirely ceased. To this must be added the interest on bank balances held abroad. Since bank balances yield a very low rate of interest—on the average not in excess of 2 per cent—the income from this source probably does not exceed 50 million gold marks (2 per cent on 2.5 billions would equal 50 millions).

Second, German shipping earnings were nearly wiped out during the first two years after the war. But in consequence of a partial restoration of the fleet, the earnings in 1922 were about 175 million gold marks, as compared with 540 millions in

[1] For a full discussion of Germany's pre-war international accounts, see Moulton, H. G., and McGuire, C. E., Germany's Capacity to Pay, pp. 251–284.

1923.[1] Three hundred million gold marks is a liberal estimate of the maximum German shipping earnings that may be expected for some years to come.

Third, the returns from banking and insurance earnings and foreign commissions have largely disappeared and are not likely to become important in the future. Even before the war they represented only a small part of the total.

Fourth, the revenues from the tourist trade, which were unprecedentedly large for three years after the war, have recently sharply declined. The maximum estimate of tourist income even in the bargain-counter days of 1922 was about 300 million gold marks. As a regular source of income 100 million gold marks per year would be a liberal estimate for the tourist trade.

Taking these invisible items all together, it does not appear that the total income from the sources mentioned is likely to reach 500 million gold marks a year.

It remains to be noted that as a result of the sale of German bonds, German corporate securities, apartment buildings, real-estate mortgages, etc., during the last three or four years, Germany has a heavy invisible debit to meet. It has been estimated that the sale of internal German property to foreigners has amounted to about 8 billion gold marks. At a nominal rate of 6 per cent, the sums which Germany would have to pay abroad as interest on these invest-

[1] Owing to the fact that post-war prices are more than 50 per cent higher than prices in 1913, the purchasing power of these shipping earnings is proportionately less.

ments of foreigners in Germany would amount to approximately 500 million gold marks.[1]

One is forced to the conclusion, therefore, that Germany's invisible accounts, credit and debit, now approximately balance. Accordingly, German ability to purchase imports in foreign countries will henceforth be determined primarily by German export capacity.

Germany's purchasing power, as measured by her export trade, has very greatly declined. The war and its aftermath have profoundly affected Germany's foreign trade, as is shown by the trade figures in the table on page 126.

The actual reduction in German foreign trade is not fully shown by this table, however, for the reason that the price level since the war has been very much higher than in 1913, the extent of the price advance varying in different years. In 1922, for example, the average of world prices was about 50 per cent higher than in 1913. Valued in 1913 prices therefore, Germany's 6.3 billion gold marks of imports in 1922 would shrink to about 4.2 billions, or less than 40 per cent of the value of her 1913 imports. But, in spite of the fact that in 1922 she had thus drastically cut the volume of her imports, Germany was still unable to meet their cost out of the proceeds from exports.

The chart (fig. 18, p. 127) shows the post-war reduction in the ratio of Germany's income from exports and services to the value of her imports. The bars

[1] The Committee of Experts estimates a small net income from foreign holdings. (See Appendix D.)

represent the percentage ratios of exports of goods and specie plus invisible items to imports in 1913 and 1922 respectively, imports being taken as 100

TRADE AND SPECIE BALANCE OF GERMANY, 1913 AND 1920–1922 *
(In millions of gold marks)

Year	Trade items			Bullion and specie			Adverse trade and specie balance
	Imports	Exports[a]	Net adverse	Imports	Exports	Net adverse	
1913	10,770	10,097	673	437	104	333	1,006
1920	3,929	3,709	220	18	15	3	223
1921[b]	5,732	2,991	2,541	19	12	7	2,548
1922	6,303	6,181	122	8	18	10	112

* Statistisches Jahrbuch für das Deutsche Reich, 1923, pp. 108–109: The reliability of the German trade figures as an index of Germany's international financial position during post-war years was frequently discussed during 1923. The fact that only part of the foreign trade was invoiced in foreign currencies, while the rest was invoiced in paper marks, admittedly raised difficulties in the way of arriving at satisfactory gold-mark values. The figures which were first given out by the government, with an explanation of the method by which the gold-mark values were determined, are given by Moulton and McGuire ("Germany's Capacity to Pay," pp. 52 and 285–286). Under pressure from experts of the Reparation Commission, the government has recalculated the trade for the years 1920–22, using a new method of converting from paper to gold values. In the revised figures, given in the table above, the part of the trade invoiced in paper marks is converted to gold-mark values by the application of 1913 prices adjusted to post-war price levels. The effect of the change has been to raise the export figure for 1922 by more than 50 per cent, the import figure remaining practically unchanged.

[a] Exclusive of reparation payments.

[b] For the year 1921, figures for eight months only, May–December, are published.

per cent. The reader should bear in mind that since the figures are in percentages the bars give no indication of the comparative value or volume of the

trade for the two years. It will be seen that the proceeds from German exports and services and interest on foreign investments were more than ample to pay for imports in 1913, the ratio being

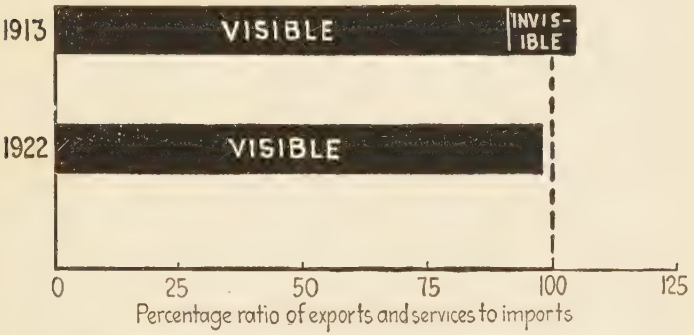

FIGURE 18.—GERMANY'S REDUCED RATIO OF EXPORTS AND SERVICES TO IMPORTS.

105 to 100;[1] while in 1922 such income was insufficient notwithstanding the great reduction in imports, the ratio being 98 to 100.

If Germany is to regain her pre-war importing capacity, she must be able to expand her exports (chiefly of manufactured goods) from 6.2 billions, the 1922 total, to over 15 billions, the 1913 total expressed in present prices. Indeed, in view of the loss of all the invisible income, which before the war amounted to over 1.5 billion marks in pre-war values, exports would have to be over 16.5 billion gold marks[2] to give Germany a purchasing capacity

[1] The year 1913 was somewhat better than the average.

[2] Some allowance needs to be made here for the reduced size of German territory.

equal to that of 1913. In the light of present chaotic conditions in Europe and in view particularly of the impoverishment of many of the countries which constituted Germany's principal markets, one must conclude that the prospect for an early return to anything like her pre-war purchasing capacity is not good.

3. Additional Credits.—There remains to be considered the possibility of an expansion of German imports through the further sale of German corporate securities, real estate, etc., or by means of additional foreign loans. What are the possibilities in each case?

With reference to the further sale of corporate securities, etc., it is clear that like the sale of paper marks, this process has practically run its course. Under existing conditions the purchase of German property is an utter gamble. If stable conditions are restored in Germany, it is also improbable that such sales of property on any large scale will continue—this because the conditions which temporarily induced such purchases would then no longer exist.

So far as the prospect of a large loan to Germany is concerned, the answer is simple as regards the near future. So long as German finances are in a chaotic condition, so long as industry is hamstrung as a result of military occupation, and so long as reparation obligations remain a primary lien on all German income, Germany's credit in international money markets is nonexistent. Only after these conditions are fundamentally changed will Germany be able to command credit.

II. THE PURCHASING POWER OF FRANCE

In comparing the aggregate foreign purchasing power of France now with that of pre-war days, we shall take into account only the ordinary means by which foreign purchasing power is obtained. We shall leave out of consideration the possibilities offered by the disastrous and transitory methods to which Germany has had to resort, namely, the use of paper money and large sales of securities and real estate to foreigners.

1. Gold and Silver.—During the twenty-year period before the war there were only two years (1896 and 1898) in which France exported more gold and silver than she imported. Since gold and silver are not produced in France, she must depend on outside sources for the supply of precious metals necessary for her currency system and for use in the arts. From 1894 to 1913 her net annual imports of the precious metals (in millions of francs) averaged as follows:

1894–1898	79.0
1899–1903	226.2
1904–1908	572.2
1909–1913	224.4

As a result of this steady inflow of gold and silver, the specie reserve of the Bank of France averaged in 1913 about 62 per cent. During the war, however, much of the accumulated gold had to be used in the purchase of food, raw materials, and war supplies.

In France as in other countries specie has been

withdrawn from circulation, but notwithstanding the concentration of metallic money in the Bank of France, the bank reserve—the ratio of gold and silver to note and deposit obligations—has been reduced from 62 per cent in 1913 to an average for the year 1922 of about 10 per cent. In view of the precarious state of French finances, it is evident that there are very definite limits upon the extent to which France can now use gold in purchasing foreign foodstuffs and raw materials.

2. The Export of Goods and "Invisible" Income.—The trade figures for France show that over a long period of years imports had regularly exceeded exports. A general view of the situation before the war is given in the table below:

Foreign Trade of France, 1894–1913
(Five-year averages, in millions of francs)

Years	Imports	Exports	Trade deficit
1894–1898	3,959.6	3,392.4	567.2
1899–1903	4,556.0	4,155.6	400.4
1904–1908	5,354.4	5,046.0	308.4
1909–1913	7,627.4	6,324.4	1,303.0

The value of imports increased steadily during this period, but for a time the value of exports increased at a somewhat faster rate. From 1909 to the beginning of the war, however, there was a sharp increase in imports, as a result of which the average trade deficit abruptly jumped to a figure more than twice as large as that for any preceding

five-year period. The deficits on account of net imports of commodities, plus the deficits on account of net imports of precious metals, show the extent to which France was dependent on income from invisible sources as a means of meeting current foreign payments. The average annual amounts of French imports which were paid for with income from foreign investments and services are shown by the following figures (in millions of francs):

1894–1898	646
1899–1903	627
1904–1908	881
1909–1913	1,527

As in the case of Germany, total figures for the French income from foreign investments, shipping, banking, and other invisible items are not altogether satisfactory. Again, however, the growth of foreign investments affords a basis for estimating the total income that was derived from these sources. In the twenty years preceding the Great War the French foreign investments increased at an average annual rate of about 1.2 billion francs.[1] This means that the average annual income from the invisible sources must have exceeded the trade and specie deficits shown above by about 1.2 billion francs, and that during the last five years before the war the annual income from the invisible sources amounted to about 2.7 billion francs. More than

[1] A detailed analysis of French foreign investments and income from invisible sources will appear in a forthcoming volume of the Institute of Economics on "The French International Debt Situation."

two-thirds of this total was derived from interest on accumulated foreign investments; the rest was from tourist expenditures in France, from shipping, banking, and insurance earnings, etc.

As a result of the war the largest source of invisible income—interest on French foreign investments—has been very greatly reduced. Of a net total of approximately 40 billions of foreign investments owned by the French at the outbreak of the war, a large part, unfortunately, were in eastern and southeastern Europe. Over 11 billions were in Russia alone. As a result of the economic disorganization wrought by the war, therefore, more than half of the total of French foreign investments have been reduced to the noninterest-paying class. The net income to France from her foreign investments has been further reduced as a result of the enormous trade deficit which accumulated during the war. About 3.5 billions of her best securities were sacrificed in meeting foreign payments on this account. At the same time, large quantities of French industrial, municipal, and corporate securities and other property were sold to foreigners—which is equivalent to an increase in the foreign debt.

As a means of securing the large excess of imports over exports that was required during war years, she also incurred a war debt to foreign countries amounting at the end of the war to a par value of more than 33 billion francs. Of this the larger share,[1] technically known as the political debt, is owed to the

[1] Amounting on December 31, 1922, to a par value of more than 29 billion francs.

treasuries of Great Britain and the United States. Since France has been making no provision for interest or amortization charges on this portion of the debt, it need not enter into a consideration of the present balance of payments. The rest of the debt consists largely of bank loans, most of which have been renewed since the war. On this, interest is regularly being paid.

Since the war, France has floated abroad various public, quasi-public, and private loans and credits, which, together with the renewal of bank loans extended during the war, aggregate at par of exchange, more than 7 billion francs on which the average interest is about 6 per cent. Most of these loans have been floated in foreign currencies, and in consequence as the franc decreases in value the number of francs required to meet the payments in pounds or dollars increases proportionately. In 1922, the government set aside almost a billion francs in the state budget to meet the annual interest charge on its share of this debt. Interest due from private and municipal corporations on this account raises the total to well over a billion francs.[1]

On the other hand, France has been making some loans to Poland, Jugo-Slavia, and Belgium, the principal of which amounts to about a billion francs, loans which for the most part consist of second-hand military equipment. And in spite of all efforts on

[1] In considering the international financial position of France it should be remembered that France is liable for 22.5 per cent of the Austrian loan in case the Austrian government defaults.

the part of the French government to prevent it, some French capital has been invested abroad in new securities and new enterprises, and on this some return is no doubt being received.

Taking the situation as it stands to-day and assuming no receipts on reparation account and no payments on the war debts, France has comparatively little income from her foreign investments. A net amount of 200 to 300 million francs may be considered a liberal estimate. The outright sacrifice of securities, the loss of interest on investments in economically impoverished countries, the necessity of meeting foreign payments on French municipal and industrial securities now owned by foreigners as well as on government commercial loans, have combined to reduce by nearly 90 per cent the net income from investments, which just before the war amounted to roughly 2 billion francs.[1]

France still has considerable income from services. French shipping has increased since the war, and despite the low freight rates the earnings from this source in 1922 were probably about 700 million paper francs. Revenue from tourist trade has also been very large. As an offset to the returns received from this source, however, France has had to pay large

[1] While this volume was in proof, an article entitled "La Crise du Franc," written by J. Decamps, economic advisor of the Bank of France, appeared in la Revue de Paris, pp. 202–222, March 1, 1924. M. Decamps' analysis indicates that our estimates are too favorable to France, and that instead of a small net income from investments there was, in 1923, a deficiency. In the Institute's forthcoming study on the French international debt situation, full account will be taken of M. Decamps's computations.

amounts to migratory laborers who have come to her from Switzerland, Belgium, and other near-by countries. International banking, insurance, and commission business has doubtless decreased with the decrease in the volume of international trade.

The following figures (in millions of paper francs) present a rough estimate of French earnings from invisible sources in the year 1922: [1]

Interest on investments	250
Shipping earnings	700
Banking, insurance and commissions	100
Tourists	1,800 [2]
Total	2,850

These figures are expressed in paper francs. In terms of 1922 gold francs the total would be roughly 1,200 millions, while in terms of pre-war gold values it would be about 800 millions. This figure may be compared with an income from invisible sources in the five years just before the war amounting to about 2.7 billions. (See p. 131.)

The adverse balance of trade is also greater than before the war. The following table shows the imports of commodities and specie for post-war years as compared with 1913. The figures, like those for other countries, give a misleading impression of the volume of the post-war trade of France as compared with that in 1913. Since we are here

[1] Reparations in kind, included in the import figures, were largely offset in 1922 by expenses of the French armies of occupation.

[2] M. Decamps arrives at an estimate of tourist expenditures almost identical with ours. He does not, however, discuss shipping, banking, insurance, etc.

interested, however, only in the amounts of the adverse trade and specie balance these value figures serve the purpose.

TRADE AND SPECIE BALANCE OF FRANCE, 1913 AND 1919–1922
(In millions of francs.)

Year	Trade items			Bullion and specie			Adverse trade and specie balance
	Imports	Exports	Net [a]	Imports	Exports	Net [a]	
1913	8,421	6,880	− 1,541	975	431	−544	2,085
1919	35,799	11,880	−23,919	176	37	−139	24,058
1920	39,905	26,895	−23,010	214	688	+474	22,536
1921	22,068	19,773	− 2,295	662	874	+212	2,083
1922	23,901	20,642	− 3,259	125	82	− 43	3,302

[a] The minus sign indicates an excess of imports; the plus sign an excess of exports.

It will be seen that the adverse trade and specie balance in 1922 was 3,302 million paper francs as compared with 2,085 million gold francs in 1913. Before the war the French income from invisible sources still exceeded the adverse trade balance; it was considerably less than the adverse trade balance in 1922. As indicated above, the invisible credit balance was about 2,850 millions and the adverse trade and specie balance was 3,300 millions, leaving an unfavorable balance of approximately 550 millions. These figures are necessarily but rough approximations; but they reveal essentially what has happened to the international economic position of France.

The chart (fig. 19) shows the percentage relation of the income from exports of goods and specie plus invisibles to the value of imports in 1913 and 1922 respectively, the value of imports in each case being taken as 100 per cent. In 1913 the ratio was 112 to 100. In 1922 it was reduced to about 98 to 100.

The present volume of French earnings from invisible sources can expand but slowly. If France

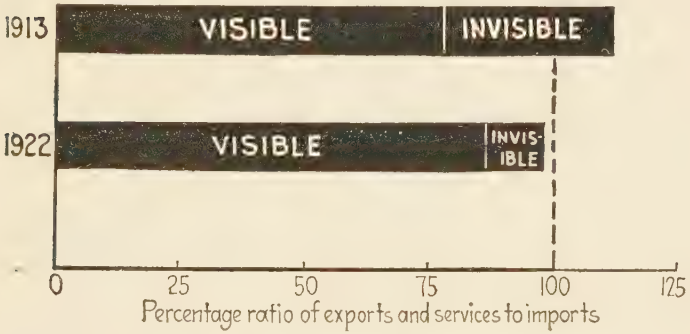

FIGURE 19.—FRANCE'S REDUCED RATIO OF EXPORTS AND SERVICES TO IMPORTS.

is to improve her external buying power it must be primarily through an expansion of exports. Whether France can materially expand her exports relatively to her imports will depend largely on the general foreign trade situation which in turn will depend largely on the extent to which the chaotic conditions in Europe generally are corrected.

3. ADDITIONAL CREDITS.—The French credit position since the war has been commonly regarded as reasonably strong. The known frugality of the

French people together with the expectations of large reparation payments seemed to provide ample guarantee of French ability to meet any credit obligations that might be incurred. However, the recent disillusionment on the reparation question, the revelation of the weakness of the French fiscal situation, and the fall of the franc, have served to shake this confidence. France is accordingly not in a strong borrowing position at the present time.[1]

It is true, of course, that some additional credits might be extended to France, and it is also true that the sale of French corporate securities, real estate, etc., might provide considerable revenues with which to purchase foreign supplies. It is nevertheless clear that France must very carefully husband her resources, keep her imports down to minimum requirements, and buy in the cheapest markets possible.

III. ITALY IN WORLD MARKETS

Before the Great War the international financial position of Italy was much inferior to that of either Germany or France, and Italy was a less important market for American products. The former countries were both in the creditor class of nations, while Italy was in the debtor class. Both Germany and France, as we have seen, had a considerable income due each year from their investments in foreign

[1] This paragraph was written in January, 1924. The rigorous terms on which the Morgan loan of March, 1924, was granted, clearly support our contentions.

countries, and neither had a foreign government debt. Italy, on the other hand, not only had interest and dividends to pay on foreign capital invested in private enterprises within Italy, but she also had payments to make on government loans which she had secured from other countries. The private borrowings from other countries were for the purpose of promoting Italian industrial development. The government borrowings were in part for internal development and in part for the currency needs of the country. If it had not been for the large receipts from the tourist trade and immigrant remittances Italy's position would have been very difficult indeed.

1. Gold and Silver.—During the twenty years immediately preceding the war Italy's total imports of specie exceeded the total exports by 531 million lire—an average excess of 27 million lire a year. By five-year averages, the net imports or exports of specie (in millions of lire) are as follows:

	Net imports (−) net exports (+)
1894–1898	− 4.2
1899–1903	− 30.4
1904–1908	−100.0
1909–1913	+ 28.4

While the total gold reserve in Italian banks of issue has been reduced since 1913 by only a little over 200 million lire, the note issues have been so greatly expanded that the reserve ratio of the Italian banks has fallen from over 60 per cent in 1913 to about 6 per cent in 1923. Accordingly, Italy can not make large purchases abroad with gold.

2. The Export of Goods and "Invisible" Income.—The trade figures for Italy, covering a period of sixty years, show only one year in which exports of commodities exceeded imports. The deficit in the accounts varied from year to year, but in general it increased, and increased rapidly. The figures for the twenty years preceding the war are shown in the table.

Foreign Trade of Italy, 1894–1913 *

(Five-year averages, in millions of lire)

Years	Imports	Exports	Trade deficit
1894–1898	1,213.4	1,082.6	130.8
1899–1903	1,692.4	1,416.0	276.4
1904–1908	2,440.2	1,772.2	668.0
1909–1913	3,419.0	2,211.8	1,207.2

* Italia Economica, No. 1 (Pinardi, editor, 1893–99), p. 250, Milan, 1907; ibid. (Bachi, editor, 1900–13), Turin, 1917.

It will be seen that by five-year averages the increase in the deficit was a geometric increase, a fact due partly to the more rapid increase in imports than in exports, partly to the steady rise in both wholesale and retail prices, and partly to a change in the basis on which the trade statistics were recorded. The last of the three factors, however, was of minor importance.

The following table shows the total deficit in Italy's trade and specie accounts that had to be met from invisible sources of income or with the proceeds of

new foreign loans. Like the figures above, these are five-year averages, expressed in millions of lire:

1894–1898	135
1899–1903	307
1904–1908	768
1909–1913	1,179

Italian income from invisible sources was not sufficient to cover the trade and specie deficits.[1] While the data with reference to Italian income from the various invisible accounts are not all that might be desired, rough estimates are nevertheless available.

Among the invisible sources of income, emigrant remittances and the income from the tourist trade were most important. It has been estimated that just prior to the war the annual income from emigrant remittances and miscellaneous sums including the income from abroad of foreign residents in Italy amounted to about 650 million lire; and from the tourist trade about 450 millions; making a total from these sources of approximately 1,100 million lire. Shipping and other sources yielded perhaps another 75 million lire.

As an offset against this 1,175 millions of income, Italy owed interest and dividends to foreigners. While Italy had some investments abroad the interest due on this account was considerably less than the sums owing to foreigners on investments

[1] For the sources from which the following data and conclusions are drawn the reader is referred to a forthcoming publication of the Institute of Economics on "Italy's International Economic Position."

in Italy. It has been estimated that the net outlay for interest and dividends amounted just prior to the war to something like 115 to 135 million lire annually. Thus when a balance is struck in the invisible accounts, it appears that Italy had a net annual income from these sources of about 1,050 million lire, an amount insufficient to meet the annual deficit in her trade and specie accounts. The difference had to be financed by new foreign borrowings.

During and since the war Italy's foreign debt has been greatly increased. For the war years, 1914–1918, the Italian trade statistics show that total imports of commodities exceeded total exports by 34,641 million lire. Figures for the bullion and specie movement are published for only three of the five war years, but the specie balance is of relatively little importance in comparison with the trade balance, the excess of specie imports over specie exports for the three years 1914–1916 amounting to only 20 million lire. On the whole, therefore, there were imports amounting to about 34.7 billion lire that had to be paid for in some other way than by exports.

Possibly 5 billions of this were met by income from the "invisibles." This assumes that on the average the expenditures of foreign soldiers and of other foreigners traveling in Italy in the service of foreign governments made up for losses in emigrant remittances and in the regular tourist trade, and that the interest due on pre-war obligations remained about the same as formerly. To cover a large part of the

remaining deficit of 29 or 30 billion lire, Italy borrowed from foreign countries sums that aggregate, at par, about 19 billion lire, but which, because of the depreciation of the lire at the time these debts were contracted, yielded Italy something like 28 billion lire. The remaining billion or so of deficit was met partly by the sale of Italian-owned foreign securities, partly by the sale to foreigners of Italian securities, and partly by short-time commercial credits extended by foreigners to Italian customers. Because of deficits in her international accounts since the war, the foreign debt of Italy is somewhat larger now than it was at the end of 1918.

At the present time, as in the pre-war period, Italy's important sources of invisible income are the tourist trade and emigrant remittances. It has been estimated that in 1922 these together yielded something like 5.5 billion paper lire. The income from shipping and other sources is estimated at about 300 million paper lire, net. The net interest obligation owing to foreigners is estimated at 350 to 400 million paper lire, not counting interest on the government war debt, which is not being met. The net income is therefore about 5.4 billion paper lire.[1]

The trade deficit to be covered has meanwhile been enormously increased. No data have been published concerning the movements of specie since the war, but such movements are known to have been

[1] Italy received in 1922 about 440 million lire of reparation payments in kind. Since this item is not included in the import figures, it should not be added to the invisible income.

of negligible importance. The official trade figures follow:

FOREIGN TRADE OF ITALY, 1913 AND 1919–1922
(In millions of paper lire)

Years	Imports	Exports	Trade deficit
1913	3,646	2,511	1,135
1919	16,823	6,066	10,757
1920	26,821	11,774	15,047
1921	17,226	8,275	8,951
1922	15,728	9,292	6,436

In 1922 the trade deficit was a little more than 6.4 billion lire, the smallest deficit for any year since the war. Against this was a net income from the invisible items of something like 5.4 billion lire. The remaining billion lire had to be met by new foreign borrowing, thus increasing the interest obligations to be met in subsequent years.

The chart (fig. 20) shows the percentage relation of the income from exports of goods and specie and from services to the value of imports in 1913 and 1922, respectively, the value of imports being taken in each case as 100 per cent. In 1913 the ratio was 99 to 100. In 1922 it was about 94 to 100.

There is little reason to believe that the present volume of Italian income from the tourist trade and from emigrant remittances will in the near future show any considerable increase. Italy can improve her external buying power only by expanding

exports. Heroic efforts have, in fact, been made by the Italian government during the past year or so to expand exports; but the purpose of such expansion has not been to enable Italy to increase her imports. On the contrary, the government has made even greater efforts to increase the production of foodstuffs with a view to curtailing imports and thereby lessening the trade deficit. Italy's balance of payments problem requires for

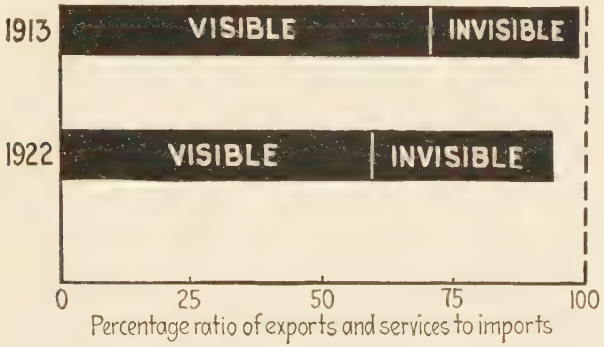

FIGURE 20.—ITALY'S REDUCED RATIO OF EXPORTS AND SERVICES TO IMPORTS.

its solution both an expansion of exports and a curtailment of imports to as great a degree as possible. Thus, even if exports should expand, there is small reason to believe that Italy will use her proceeds therefrom to increase her consumption of foreign goods. Only to the degree that the expansion of exports requires additional imports of raw materials will Italian imports be expanded.

3. ADDITIONAL CREDITS.—From the foregoing analysis it is clear that Italy has been a practically

continuous borrower in foreign markets. The increase in interest obligations, together with the huge trade deficit, has rendered Italy's credit position comparatively weak. While, as in the case of France, some additional loans might be procured, and while the sale of Italian securities, real estate, etc., might for a time provide considerable revenues with which to buy additional foreign goods, it is perfectly clear that the Italian government's policy of endeavoring to avoid further foreign borrowing is fundamentally sound.

IV. OTHER "CONSUMING" COUNTRIES

The situation in Germany, France, and Italy is more or less typical of all of the industrial or consuming nations of the European continent. A few words of general comment must, therefore, suffice for the rest of the Continental nations.

The Scandinavian countries (Norway, Sweden, and Denmark) are in large measure self-sufficing so far as foodstuffs and raw materials are concerned, and are therefore of relatively minor importance as consumers of the surplus products of agricultural countries. So far as the gold and bank-reserve problem is concerned, these countries are in a sound enough position. Their trade, however, is closely linked with that of the belligerent countries of Europe and has suffered materially as a result of the general disorganization. As measured by export-trade figures converted to a 1913 gold-price basis their actual power to purchase imports is now some-

what below that of pre-war years. Sweden is in a distinctly more favorable situation than her neighbors.

The trade of Belgium and the Netherlands, sometimes referred to as the transit countries, has suffered much more severely than that of the Scandinavian nations. In terms of pre-war prices, the export trade of Belgium in 1922 was 50 per cent below the 1913 level, while that of the Netherlands was reduced by more than 60 per cent. The situation in the Netherlands is particularly interesting in view of the fact that that country accumulated very large supplies of gold during the war period and now has reserves almost four times as large as in 1913.

The situation in Switzerland and Spain is similar to that in the Scandinavian countries. Swiss exports have held up well, though in terms of pre-war gold prices the figures of 1922 are slightly below those of 1913. The purchasing power of Spain, as measured by exports, has been reduced somewhat more than has that of Switzerland. These countries, like the other "neutral" nations, have abundant quantities of gold. Their difficulties are rooted in the general European trade situation.

All that needs to be said with regard to Austria is that notwithstanding the recent marked improvement resulting from the international loan under the administration of the League of Nations, the purchasing power of that country is still at a low ebb.

So far as income derived from invisible sources is concerned, it is only necessary to point out at this place that for these nations it has decreased rather

than increased as compared with pre-war years. On the whole, those countries whose invisible income is largely derived from the tourist trade and from emigrant remittances have fared comparatively well, while those countries whose chief sources of income were interest on foreign investments and earnings from shipping have fared badly.

V. GREAT BRITAIN'S ABILITY TO BUY

Great Britain, as the statistics in the preceding chapters of this study reveal, was before the war by far the most important European market for American foodstuffs and raw materials. Therefore even though Continental buying power has been greatly reduced as a result of the war, may it not still be true that, in consequence of the strength of England's position, the total purchasing power of Europe may yet compare favorably with pre-war years? We have left the discussion of Great Britain's ability to buy to the last, in part because Great Britain is our most important European customer, and also because the future buying capacity of Great Britain can be more accurately appraised in the light of the preceding discussion of the buying power of the continental countries that comprise Britain's principal markets.

1. Gold and Silver.—Like Germany, France, and Italy, Great Britain is not a producer of gold and silver, and she therefore has to exchange commodity exports for imports of the precious metals. The fact that British colonies produce the precious

metals in no wise effects the British specie problem. Imports of gold and silver from South Africa have to be paid for by Great Britain just as do imports of gold and silver from the United States, for the people of the colonies do not furnish either gold or other goods to the people of the mother country free.

From 1894 to 1913 Great Britain's net imports of bullion and specie were as follows, in five-year averages in millions of pounds sterling:

1894–1898	5.0
1899–1903	5.8
1904–1908	1.2
1909–1913	7.1

As a result of the war and succeeding years the British bank-reserve position has been very greatly weakened. While it is possible that Great Britain might part with some additional gold for the purchase of foodstuffs and raw materials, the result would be a further weakening of the British monetary position, something which should be avoided at almost any cost. It is recognized that if currency stability and a return to exchange parity is to be effected Great Britain must conserve, if not increase, her supply of gold.

2. The Export of Goods and "Invisible" Income.—British exports and imports of commodities for a twenty-year period before the war are shown by the table on page 150.

The figures in the final column indicate the volume of imports that had to be paid for by means other than by exports. If we add to these trade deficits

FOREIGN TRADE OF GREAT BRITAIN, 1894–1913

(Five-year averages, in millions of pounds sterling)

Years	Imports	Exports	Trade deficit
1894–1898	437.6	288.8	149.4
1899–1903	520.2	348.2	172.0
1904–1908	592.5	442.7	149.8
1909–1913	699.3	558.8	140.5

the average net imports of specie during the years in question, we derive the following total imports of goods and specie that were not paid for with the proceeds from exports, and that hence had to be met with the income from "invisible" accounts. The figures are five-year averages in millions of pounds sterling.

1894–1898	154.4
1899–1903	177.8
1904–1908	151.0
1909–1913	147.6

Fortunately the British data with reference to foreign investments, shipping, banking, and other service earnings are much more adequate than those for Germany. The amount of net income derived from invisible items is below set off against the adverse trade and specie balance.

It will be seen from this table that Great Britain annually derived from the invisible accounts a larger income than was required to pay for the excess of imports not covered by exports. The balance went

to enlarge Great Britain's foreign investments, thus expanding her annual income in the form of interest.

BALANCE OF PAYMENTS OF GREAT BRITAIN, 1894–1913 *

(Five-year averages, in millions of pounds sterling)

Years	Favorable invisible balance	Adverse trade and specie balance	Net balance in favor of Great Britain
1894–1898	181.1	154.4	26.7
1899–1903	198.9	177.8	21.1
1904–1908	243.9	151.0	92.9
1909–1913	309.1	147.6	161.5

* These data, as well as those in other tables have been compiled from a variety of sources. The detailed references and the method used in computing the various items will be fully explained in a forthcoming publication of the Institute of Economics on "Great Britain's International Economic Problem."

During the war Great Britain's international trade and financial situation underwent important changes. In addition to the loss of gold, previously mentioned, it was necessary to sacrifice a very considerable volume of foreign investments. At the same time, trade and shipping and other services were more or less disorganized.

During the war period the British government became both a borrower and a lender in international markets—a borrower in the United States and a lender to her continental allies. Since the war she has considerably reduced her own external debt. On the credit side, the debts due her by other nations have been only very slightly reduced, and the effects of these reductions have been offset

by the fact that Great Britain has granted to other nations some additional loans for relief and reconstruction. As a result of these various operations the external debt of the British government on March 31, 1923 amounted to 1,156 million pounds sterling,[1] while the foreign loans due the government on the same date (principal and interest) amounted to 2,097 million pounds.

Now the significant fact to be taken into consideration is that while Great Britain is at present meeting interest and amortization charges on the British government debt to the United States, she is receiving practically nothing on account of the government debts owed to her by continental countries, nor is she likely to receive anything for many years to come. Accordingly, Great Britain does not follow the continental practice of including these claims in current budgets. So far as the present and near future is concerned, we must accordingly omit from the picture the continental debts owed to the British government.

The following figures, therefore, represent only the net realizable income from each of the invisible items.

It should be pointed out that the figures of net income received on account of interest on foreign investments represent the total interest income from both private and public foreign loans and investments, less the interest paid by the British

[1] The foreign debt of the British government is practically all due to the United States, and was contracted in terms of dollars. Conversion to pounds sterling has been made at par of exchange.

INVISIBLE INCOME OF GREAT BRITAIN

(In millions of pounds sterling)

Year	Interest on foreign investments	Shipping earnings	Banking, insurance, etc.	Miscellaneous items	Total
1913	200	100	35	5	340
1920	120	340	40	5	505
1921	130	85	30	.....	245
1922	140	90	30	.....	260

government and by British citizens on government and private debts abroad. This net interest income was greatly decreased as a result of war and post-war transactions.

1. The total of Great Britain's foreign investments at the end of the war was considerably less than it was in 1913. It has been estimated that about 623 million pounds sterling of first class securities were requisitioned and sold by the Treasury, and that an additional 150 to 160 million pounds [1] may be written off as lost investments in belligerent countries. In addition to this there was, of course, a considerable sale of securities on private account—not included in the above estimates.

2. During the years 1920, 1921 and 1922, the

[1] Board of Trade Journal, p. 385, March 29, 1923, checked by Sir George M. Paish's classification of Great Britain's foreign investments in 1913, according to their geographical distribution.—*Transactions Manchester Statistical Society, February, 1914.*

British government made large payments to foreign creditors on account of both interest and principal. The funds were in part derived from the sacrifice of securities which had been given as collateral for war borrowings. These payments, it may be observed, have nothing to do with the war debt funding agreement with the United States, which did not go into effect until December, 1923.

Shipping earnings in 1922 were also less than in the years just before the war. In 1919 and 1920 the income from shipping far outweighed all other invisible items put together. In 1921, however, there was a great slump in shipping, both in the volume of trade carried and in freight rates, and while 1922 saw some increase in the volume of shipping required, competition continued to drive the rates still lower, with the net result that the income from shipping was increased only slightly over that for 1921.

Turning now to the trade figures, we find some important changes in them as well as in the invisible items. The table on page 155 shows the imports and exports of commodities and specie for war years as compared with 1913:

Taking the figures as they stand, it would appear that both the export and the import trade of Great Britain have expanded since 1913. Allowance must, however, be made for the change in the prices of imported and exported commodities since 1913, and when this is taken into consideration the fact emerges that there was a considerable shrinkage in the volume of both imports and exports. The 1922

TRADE AND SPECIE BALANCE OF GREAT BRITAIN, 1913 AND 1920–1923

(In millions of pounds sterling)

Year	Trade items			Bullion and specie			Adverse trade and specie balance
	Imports	Exports	Net [a]	Imports	Exports	Net [a]	
1913	768.7	634.8	−133.9	74.0	62.2	−11.8	145.7
1920	1,932.6	1,557.2	−375.4	60.6	104.1	+43.5	331.9
1921	1,085.5	810.3	−275.2	59.9	71.4	+11.5	263.7
1922	1,003.9	824.3	−179.6	44.6	58.1	+13.5	166.1

[a] The minus sign indicates an excess of imports; the plus sign, an excess of exports.

trade figures [1] given below are converted to a 1913 price basis in order to permit comparisons between the volume of trade in the two years. The figures are in millions of pounds sterling.

	1913	1922
Imports	768.7	659.4
Exports	634.8	451.2

It is important to point out at this place that the price advance of foodstuffs and raw materials, which constitute Great Britain's principal imports, has not been as great since 1913 as the rise in the prices of manufactured goods, which constitute Great Britain's principal exports. Concretely, the index num-

[1] For details with regard to this conversion, see the Board of Trade Journal, pp. 122–123, Jan. 25, 1922.

ber for imports in 1922 was 152 (1913 prices being taken as 100), while the index number for exports was 199.[1] In consequence, a given volume of exports in 1922 bought a larger volume of imports than in 1913. This factor in the situation during the last two years has been of material importance in enabling Great Britain to maintain her volume of import purchases.[2]

The chart (fig. 21) indicates the percentage ratio of the proceeds from the export trade and

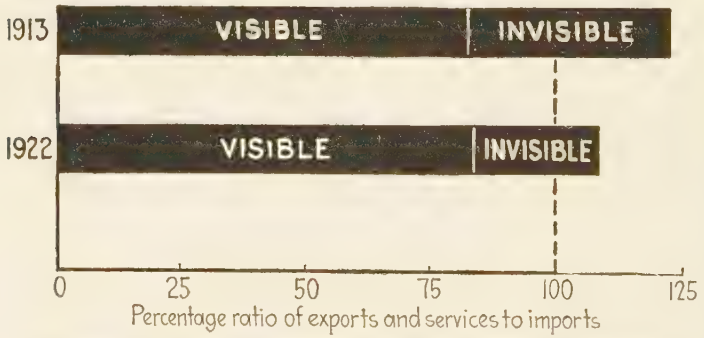

FIGURE 21.—GREAT BRITAIN'S REDUCED RATIO OF EXPORTS AND SERVICES TO IMPORTS.

the invisible accounts to the value of imported goods in 1922 and 1913 respectively. It will be seen that in 1913 the income from the export of

[1] The index number for reexports, which constituted about 12.6 per cent of total exports, was 116.

[2] This same price situation applies more or less in the same way to the continental countries. But since satisfactory index numbers of the prices of exports and imports are not available for these countries, no account was taken above of this situation in the discussion of their trade.

goods and specie plus that from services was 23 per cent in excess of the cost of imports. In 1922, it was 9 per cent greater. Even with the price changes working strongly in her favor and with the volume of imports materially decreased, Great Britain found it much more difficult in 1922 to pay for imports than she did in 1913.

Great Britain still has a net favorable balance of payments. Notwithstanding the vast changes in international trade and financial operations during the war and succeeding years, Great Britain still derives a net income from her international trade and financial operations. The following table shows the balance of payments in 1913 and in the years 1920, 1921, and 1922:

BALANCE OF PAYMENTS, 1913 AND 1920–1922

(In millions of pounds sterling)

Year	Unfavorable trade and specie balance	Favorable invisible balance	Net balance in favor of Great Britain
1913	146	340	194
1920	332	505	173
1921	264	245	[a] −19
1922	166	260	94

[a] Unfavorable balance of payments.

This means that Great Britain in 1922 had a little over 400 million dollars of international income which was not used in buying imports.

This sum was available either for the purpose of expanding imports from abroad or in building up additional foreign investments, thereby increasing future interest income and thus strengthening her international trade position.

Great Britain's income either from interest or from other invisible items is not likely to increase rapidly in the near future. As things now stand, the total of foreign investments and hence the interest income can expand but slowly at best. While the foreign-debt payments made in 1920–1922 cleared up all of her miscellaneous outstanding obligations except a debt to Canada,[1] the enormous war debt to the United States still remains. The annual interest and amortization payments due on this debt, according to the funding agreement of 1922, vary from 160 to 185 million dollars. If exchange rates were at par this would mean from 33 to 38 million pounds. With the average rates prevailing in 1923, it means about 35 to 40 million pounds. Shipping and other earnings may increase slowly, depending, however, on the general state of world trade and finance. The same thing holds true of British exports.

In considering Great Britain's purchasing capacity during the next few years one needs to bear in mind the existence of large foreign investments. In case of dire need, Great Britain can sacrifice foreign investments for the purchase of necessary raw materials and foodstuffs. That is to say, if during

[1] This she has agreed to repay at the rate of 5 million dollars monthly until it is extinguished.

the next few years the income from the export trade, from shipping and other services, and from interest on foreign investments, should prove inadequate to pay for necessary food and raw materials, and to meet the interest on the debt to the United States, the British nation could, by sacrificing some of her existing foreign investments, make up the deficiency. In this respect Great Britain's situation is very different from that of Germany.

Assuming that Great Britain's export trade is not too severely crippled by the demoralization of continental economic conditions, it is clear that she can for some years maintain her present import trade. Indeed, she could even increase it if she were to sacrifice foreign investments for the purpose. It remains to be noted that if the worst came to the worst, Great Britain might also purchase foreign goods through the proceeds of the sale to foreign buyers of paper pounds, corporate securities, real estate, etc. For instance, there are a large number of castles still remaining in England which might find favor in the eyes of the American financial aristocracy. Altogether, therefore, it is evident that by hook or by crook Great Britain can continue for some time to come to pay for necessary food and raw materials.

3. Additional Credits.—It remains to be noted that Great Britain is in a relatively favorable credit position. With a net favorable balance in her international accounts available for paying interest on new loans, there should be no difficulty in case of need in floating British securities in foreign markets.

Hence, Great Britain might maintain or even expand her imports of food and raw materials within the next few years by a resort to credit.

It must be pointed out, however, that Great Britain's credit position would be very rapidly weakened if the methods of financing imports suggested in the preceding paragraphs were employed. The liquidation of present foreign holdings, or the sale of paper pounds, domestic securities, castles, etc., would directly lessen Great Britain's income from the invisible accounts and undermine her whole trade and financial position. It is out of regard for considerations such as these that Great Britain will steadfastly refuse to part with her capital resources so long as there is any other possible method of financing import requirements.

If one might assume that continental markets for British exports would show no further decline, one might fairly conclude that Great Britain's imports of foodstuffs and raw materials would be at least maintained at the present level. Great Britain's future is therefore very closely linked with that of Continental countries. In the light of the data presented in preceding pages with reference to the leading countries of Europe, one must conclude that so far as the next few years are concerned, the prospect of an expansion of British sales on the Continent is not favorable.

CHAPTER VI

WHAT DETERMINES WHERE EUROPE WILL BUY?

We have shown in Chapter V that the several sections of Europe to which we normally look for an agricultural market have in prospect but a limited power, as compared with that of 1913, to purchase in outside markets. Naturally this limited purchasing power will be husbanded as carefully as may be, in order that these scanty means shall go as far as possible toward maintaining life and restoring the industry of the several countries. The question which concerns the American farmer in the face of these circumstances is this: Can Europe produce her own agricultural supplies or draw them from South America, Australia, Asia, Africa, or Canada more advantageously than she could import them from the United States? What are the factors which will bring European buyers to our markets or repel them from us?

Obviously, the export and import of agricultural products is but one segment of the whole complex international trade system. Its magnitude and direction are inextricably interwoven with other strands in the economic life of the world. European nations will restore, enlarge, maintain, decrease, or abandon trade relations with our farming industry

only as they find their greatest net relative advantage to lie in one or another of these courses. In Part I we have stressed the fact that European dependence on the American farm market was by no means absolute, but was, on the contrary, *relative* to the development of domestic or competing foreign sources of supply, *relative* price levels, and complementary trade movements. Before passing on to analyze the factors attracting Europe to our agricultural market in the future or keeping her away from it, we shall in the present chapter examine some of the chief elements which enter into such commercial choices.

It might seem that the question of what determines a nation's choice of markets could be dismissed by the bald statement that importing countries buy where a surplus exists or, if there are several surplus-producing countries, in that one where the product is cheapest. A second thought, however, reveals the fact that the term "surplus" is but a vague and relative one. The line above which the so-called surplus is to be reckoned itself depends upon the price level and the purchasing power of the domestic population. The high standard of living in the United States, both urban and rural, tends to make our export surplus less in proportion to per capita production than in countries where the poverty of a peasant population forces it to sell that which is really needed for its own proper sustenance. As we shall see in Chapter VII, the commercial surplus in Central Europe has in some cases fallen off when the exactions of the big landowner were removed

through land-tenure reform. In Russia and Poland a surplus has been created by the system of paying taxes in grain.

Likewise, the ascertainment of which of several possible sources of supply is in fact the cheapest, all things considered, depends on much more than the mere price per pound or bushel as displayed in the market place. In fact, there are not less than six elements that enter into the problem of where the European import nations can most advantageously supply their needs. These six factors are initial cost, transportation charges, reciprocal trade facilities, foreign exchange rates, trade terms, and the possibilities of home supply.

First, of course, will be the question of *initial cost* or market price in one country as compared with another. The American farmer's problem is, "Will my chance at the European market be poor because other countries are supplying similar products at prices less than my cost of production?" In the main the answer to this question is in the affirmative. As has been pointed out in earlier portions of this book, the United States has now carried her agricultural development to a stage where costs of producing the marginal portion of our present volume of product run higher than similar costs in newer countries. The lower capitalization of their lands and in some of them the cheaper labor supply doubtless contribute to the relative advantage of these competitors of our farmers. At all events we are finding that there are enough other producers abroad willing to supply Europe at or below our present level of

prices to prevent this level from rising high enough to earn current charges on land here and to maintain what we consider an American standard of living. Stated from the buyer's point of view, Europe would be lost if she were dependent entirely on the United States and had to pay these rents and wages for the whole of her food imports.[1]

Initial cost, however, is not the final determinant of whether the import buyer will make his purchases here or elsewhere. He is concerned with final costs laid down in the consuming market. The second element in his considerations, therefore, is *transportation charges*. In this regard the United States (see Chapter II) gained a relative advantage during the war at the expense of more distant lands. To-day, ocean freight rates are down and rail rates remain high, thus working to the disadvantage of a country of long interior distances, even though it has a shorter ocean distance from Europe than India or Australia. Even Argentina enjoys a rate on wheat which is from 3 to 11 cents per bushel lower to Liverpool than the rate from the wheat fields of the United States, primarily because of the greater nearness of her wheat area to the seaboard.[2]

[1] It will doubtless occur to the reader that cotton is an exception to the above statement. This is largely true, and the cotton situation is discussed in some detail in later chapters. The point is, of course, that other sources of supply are of minor importance, and hence the European spinner must come here, even though the boll weevil and the negro labor problem force costs to a high figure. Users curtail their consumption to bring it into adjustment with the high cost, but at the same time are stimulated by these high prices to seek to develop other sources of supply.

[2] Weather, Crops and Markets, vol. 4, no. 22, p. 588. This lower freight rate is somewhat counteracted by high handling charges.

The third element in the choice of buying markets concerns the possibilities of *reciprocal trade.* If the prospective buyer is the producer of an export surplus of some product, manufactured or otherwise, desired in the agricultural country, direct exchange is possible. Two-way cargoes can be furnished to the carrying vessels, direct banking connections facilitate settlement, and foreign exchange relations are reduced to their simplest and most favorable terms. In the absence of such reciprocal trade it is quite true that commercial relations may be built up in such a way as to move around the three sides of a trade triangle or even a trade polygon with almost any number of sides. However, it will hardly be denied that the existence of a directly complementary export-import exchange considerably facilitates the trade. For example, the fact that Argentina does not produce a home supply of the industrial products in whose manufacture Great Britain excels puts her in a more favorable position to dispose of her agricultural products in the British market than the position now occupied by the United States, whose people are themselves exporters of textile and metallurgical products in direct competition with Great Britain. Argentina could not conveniently complete an indirect transaction by taking manufactures from England and sending agricultural products to the United States, since with our agricultural surplus we are not in a position either to accept such agricultural products from her nor to carry coals to Newcastle by disposing of our manufactures in the British market.

It is an axiom of the trading world that where a country buys it is likely to find a favorable place to sell, or conversely that one of the best ways of expanding a selling market is by buying the goods offered in that country. The more highly developed the organization of international commerce and the more perfectly adjusted the world's financial machinery, the less the merit of direct as compared with roundabout trade. But under to-day's disorganized conditions it has practical significance, particularly in those countries the demoralization of whose currency has broken down their machinery for international settlement. Such countries find that the primitive types of barter to which they are now forced to resort can be carried on only by direct negotiation, and for its success a strictly complementary demand is necessary. This is clearly illustrated in the commercial relations of Russia and the nations of Central Europe.

In addition to the ordinary factors of surplus production and consumptive demand which direct trade into one channel or another, there are the special barriers or inducements set up in the way of tariff restrictions, export bounties, or, in extreme cases, complete embargoes. Two significant phases of the matter may be mentioned for illustration. Several of the countries of Central Europe immediately following the war held exaggerated notions that "self-determination" could advantageously be coupled with self-sufficiency. Experience is teaching the necessity for more liberal trade policies, and numerous reductions in such tariffs have been

made, looking particularly to a more easy and natural interchange between the industrial and near-by agricultural areas of Europe. Even Great Britain in 1923 had a considerable movement toward protectionism with "imperial preference" which, if it had gone through or if it should be revived would doubtless tend to lessen our agricultural market there and to foster imports from Canada, Australasia, and India.[1]

Our own position in the matter is expressed in a protective tariff which, on the one hand, impedes the entrance of European manufactures in payment for our farm produce and on the other puts up the bars against wheat and cattle from Canada, corn and beef from Argentina, eggs from China, butter from Denmark, and wool from Australia. The latter duties tend to keep prices of farm products lower in these surplus countries than in the United States and thus to attract European trade thither. They likewise check three (or more) cornered trades by which exports of wheat from the United States might ultimately be paid for by imports into America of Australian wool or Argentine corn. We are not arguing whether the country as a whole is better off with or without these duties, but merely pointing out that they do have a very real bearing on the choice of markets in which importers

[1] This is not to imply, of course, that even Mr. Baldwin's policies contemplated import duties on food supplies entering England. However, any measures tending to stimulate a market for British exports in her overseas domains would naturally facilitate the purchase by her of agricultural products in these buying countries.

will buy. That Europeans view the matter in this light is indicated in frequent utterances in their periodicals. For instance:

American wheat is at present selling at a price below cost of production, and exports have fallen from 208 million bushels in the fiscal year ended June 30, 1922, to 155 millions in the corresponding period of 1923. Similarly, corn exports have fallen from 176 millions to 94 millions. This decline in foreign markets is due to the revival of agriculture in Europe, the rapidity of which was accelerated by the inability of European manufacturers to dispose of their goods in the United States owing to the high tariff wall, and to establish in that country the credits necessary for the purchase of American grain. . . . Cotton has also followed the same path. American export sales of raw cotton, of which Germany in normal times took over one-quarter, fell from 6,542,000 bales to about 5,066,000 bales. Not only did Germany's purchases of cotton decline from 1,688,298 bales[1] to 916,727 bales, or about 46 per cent, but France bought less and so did England; the latter country taking only about 1,369,000 bales as compared with 1,766,000 bales. Internal troubles and the operation of the American tariff have thus tended to restrict Europe's purchasing power in the American markets.[2]

[1] Evidently an error, as our Summary of Commerce and Finance gives 1,588,298 bales. Using the latter figure, the decline would be 42 per cent instead of 46 per cent as stated in the quotation.

[2] The Statist, p. 644, Nov. 10, 1923: In this connection it is interesting also to get the point of view of the committee of the American Farm Bureau Federation, which went abroad in November, 1923, to study the European situation as it relates to the American farmer. Their spokesman reported at the annual convention on December 10, 1923, as follows: "But whether for barter or for money there are serious obstacles to the full and necessary development of international trade that are of gratuitous American making. Our tariff laws are in many instances prohibitive rather than pro-

Foreign exchange rates constitute a fourth factor in the choice of markets. In the present state of the world's trade they operate in the main to pull customers strongly away from our market. Under ordinary conditions of peace-time trade the foreign exhange rate moves above or below the "par of exchange" only by the small amount which covers the cost of shipping gold from one country to another. But during and since the war the balance of payments due us has been so heavy that European nations have not been able to meet all their obligations abroad by shipping specie, even though they parted with gold in quantities so great as to weaken their reserves at home. This loss of gold reserves together with the expansion of bank notes and currency obligations in Europe has greatly depreciated their money (no longer on the gold standard) in terms of the American dollar and seriously increased the difficulties of further purchases here.

Such depreciation is least in Great Britain, as indicated by an exchange rate of $4.241 (Jan. 15, 1924), par being $4.867. In France it is bad and

tective. They make it impossible for foreign countries to sell to us and therefore impossible for them to buy from us. International trade is literally a trade, an exchange. If there is nothing that we can take in exchange for what we offer there is no trade. Nations can not buy without selling. We need tariff laws that are designed to equalize competition and not prevent it. Tariffs dictated by greed bear heavily on our farmers for they increase their cost factors and impede the sale of their products. The American Farm Bureau Federation has defined its position on this subject and it should resolutely press for the adoption of the principle of nonpolitical tariffs adjusted so as to compensate for differences in labor costs here and abroad."

growing worse, the quotation for francs being 4.43 cents (Jan. 15, 1924) as against a par of 19.3 cents. The quotation of German marks ceased in November, 1923, when depreciation had progressed to a point where an exchange rate was utterly meaningless.[1] With these depreciated exchange rates in Europe it becomes necessary for France, if she is to buy in the United States, to offer about $4\frac{1}{2}$ francs for what could be bought for one franc at par, and even Britain must give a pound and nearly three shillings for $4.87 worth of our goods. Since prices abroad have not risen as fast as exchange has fallen the high cost of goods bought here is not completely offset by an equally high resale price in Europe.

In contrast to this situation, other nations, such as our South American competitors, are in a position to balance their ordinary trade more readily than we by reason of their relatively greater ability to absorb European manufactures and likewise do not have their exchange rates driven up by the need of debt settlements. Furthermore, Argentine currency, for example, is itself depreciated in terms

[1] The tendency to keep European exchanges low and to retard the return to a gold basis is still further accentuated by the existence in Europe of large government debts owing to the United States. To be sure Great Britain and Finland are the only ones of our European borrowers who have thus far made any actual payments on these debts. But the purchase of exchange in preparation for every such settlement forces the New York rate up (or the European rate down) and renders the purchase of our farm products for export all the more difficult. As long as these European debts remain and just in proportion as payment upon them is made, this difficulty will continue.

of New York exchange, thereby further facilitating commercial transactions with the depreciated currency countries of Europe. Since two countries, both suffering from depreciation, are able to keep their foreign exchanges in more normal relationship than can a depreciated-currency country and a country on a strictly gold basis like the United States, it is evident that this force tends distinctly to facilitate and promote trading between the surplus and deficit areas of Central Europe rather than with us. For example, Germany can (as far as supplies exist) trade with her equally bankrupt neighbor, Russia, on much more even terms than with high-exchange America. The views of an actual importer approaching this problem from the British angle are set forth in the following quotation:

> The English pound sterling is still recognized as a reliable token of value, because, in the first place, it is in the main secured by gold, and the portion which is unprotected by gold rests on the taxable resources of a country solvent up to the present. Before the war, the pound sterling was usually worth about 20 shillings sixpence in New York. To-day it is worth 18 shillings eightpence in New York and about 19 shillings twopence in Montreal. This country buys grain in New York and Montreal, and by a well-known law of economics, when any country has a perpetual exportable surplus, the price realized for the exportable surplus determines the home price. But India has usually a surplus of wheat to export. Argentina has always a surplus, and Australia, except at very rare droughty intervals, also has a surplus. At the present time, those three countries are all exporters. The pound sterling is to-day worth 1 pound 10 shillings in Calcutta and 1 pound 4 shillings sixpence in Buenos Aires. It is

usually at a premium in Melbourne, but to-day the Melbourne value is about 19 shillings ninepence.

Only to quote those figures shows what a disadvantageous position America occupies as an exporter of wheat and flour. In this connection it is worth remembering that when the pound sterling at its worst went to something between 14 and 15 shillings in New York, it was worth 21 shillings in Melbourne. It was that great advantage which gave Australia its first grip on the flour trade in the United Kingdom, and the fine quality of Australian flour has enabled Australian millers to hold a large share of the British trade.[1]

A fifth consideration governing choice of a market concerns *trade terms*. The seller who can give the longest credit, lowest interest, and best services will be the one preferred. In this regard the United States is now in a strong position. In fact no small part of the trade we have thus far kept up has been due to our ability and willingness to grant credits. However, the mere capacity to lend ceases to mean much when the would-be buyer gets into the position of offering no tangible prospect of ultimate repayment. The strong financial position of the United States gives us to-day only a fraction of the advantage it normally would. This is due to the gloomy economic outlook or actual bankruptcy of our one-time customers in Europe.

A final factor influencing the actions of those whom we should like to see coming to buy in our market turns on the possibilities of *home supply*. Europe

[1] From a letter of Mr. Andrew Law, a prominent flour importer of Glasgow to The Northwestern Miller, printed in their issue of Sept. 19, 1923.

bought here when prices were low and terms favorable. Home producers could not supply the home market as advantageously, and hence domestic agriculture merely held its own or went backward, while agricultural imports were bought with the proceeds of a flourishing industrial export business. But to-day, with foreign agricultural products harder to procure in the face of bad exchange rates and shattered export trade, the possibilities of home production are being assiduously exploited again. In several of the European countries, particularly of the United Kingdom and France, the desire for self-sufficiency stretches the idea of home supply to include not merely the mother country but also overseas possessions or self-governing dominions—everything within the imperial family circle. Chapter VIII shows several particulars in which this consideration operates to weaken our market position.

With these general considerations in mind we can now turn to some concrete measurements of our agricultural export position with reference to the important European countries whose purchases have in the past contributed to the prosperity of our foreign trade.

CHAPTER VII

AGRICULTURAL PRODUCTION AND IMPORTS OF EUROPE

From the standpoint of agricultural supplies Europe falls into two great divisions—deficit countries and surplus countries. France has approximated a position of self-sufficiency but will here be treated in the deficit group since she has ordinarily figured as one of the important buyers of American farm products.

I. THE DEFICIT COUNTRIES

Of deficit countries, the United Kingdom has been for many years the chief. It was estimated at the opening of the Great War that Great Britain secured nearly 60 per cent of her foodstuffs from abroad. The low point of British agricultural prosperity had come somewhat earlier, it being generally conceded that the domestic producer's position had improved during the decade of rising agricultural prices preceding the war. This, however, had not had time to bring about any considerable increase in actual production, although in 1912 a prominent agricultural authority [1] stated it as "probable that a large

[1] Strutt, E. G., quoted by Reginald Lennard, Journal of Political Economy, p. 598, Oct., 1922.

proportion of the second-class grasslands of the south and east of England, and perhaps some of the east Midlands, could be reconverted into arable with considerable profit to those engaged in their cultivation." The extreme dependence of the United Kingdom on oversea food supplies during the Great War caused extensive discussion of a new national policy looking toward much greater self-sufficiency in the future. Mr. A. D. Hall,[1] one of the foremost among English agricultural scientists, wrote vigorously in support of a policy of returning to the arable acreage of 1872, which he estimated would produce 60 per cent of the country's wheat requirements instead of the pre-war figure of 20 per cent and would at the same time stimulate live-stock production.

Such programs of agricultural stimulation were generally admitted to imply and require government action if results were to be obtained, and policies of this character have continued to be advocated by official bodies both during and since the war. They may be epitomized by a paragraph from the report of Lord Selbourne's Agricultural Policy Committee (late in 1916): "Before the war, the value of foodstuffs, including sugar, which we imported into the United Kingdom from overseas, though capable of production within these islands, was of a value of about £200,000,000. We have no hesitation in saying that by the adoption of a complete policy by the state, a large portion of this could be produced from within the British Isles."

[1] Agriculture After the War (1916).

Of the numerous food control, corn production, and other acts designed to carry out such purposes, however, most have proved to be ineffective. So much so in fact that Sir Charles Fielding, who had been director-general of food production during the war and a strong advocate of agricultural self-sufficiency since, sadly concludes:[1] "It must also be clearly understood that the farmers of the country will not accept any more 'government guarantees' in the future, that are not backed up by something more substantial than a Corn Production Act which a flighty politician tears up practically without provocation, thought, advice, or even pressure."

It is evident that the propaganda for greater agricultural self-sufficiency still has active support from high quarters in England. Books, articles, and official reports urging the course continue to appear, but the English farmer has in fact made but little progress toward such a readjustment and enlargement of his industry. The chief figures[2] showing this are given on the opposite page.

The whole situation comes down to a triangle of forces: the British farmer, requiring higher prices; the British wage worker, demanding a low cost of living; and the foreign producer, competing for an outlet for his product. In this three-cornered struggle British farmer and British wage earner pull

[1] Food (1923), p. 68.

[2] These confirm what is generally understood to be taking place, viz., a shift from arable farming to live stock. So great in fact is this tendency that bounties have been proposed on plow land. As premier, Mr. Baldwin advocated such a bonus of a pound per acre under cultivation.

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN GREAT BRITAIN AND IRELAND, 1909–1913 AND 1919–1923

(000 omitted)

Year	Wheat	Oats	Potatoes	Cattle	Sheep	Swine
	Quintals	*Quintals*	*Quintals*	*Head*	*Head*	*Head*
1909–13 (average)	16,232	29,986	69,247	[a] 11,937	[a] 27,629	[a] 3,306
1919	18,866	36,081	64,133	12,491	25,119	2,925
1920	15,467	31,996	64,763	11,773	23,404	3,116
1921	20,084	29,145	66,592	11,893	24,273	3,639
1922	17,372	28,896	87,586	12,059	23,747	3,492
1923	[b] 15,995	(c)	(c)	[d] 12,169	[d] 24,166	[d] 3,833

[a] 1913 only.

[b] Scotland and Ireland estimated.

[c] Complete figures not available. The production of oats in England and Wales, however, was 13,484,000 quintals in 1923 as against 13,146,000 quintals in 1922. The potato yield for England and Wales dropped from the high point of 40,764,000 quintals in 1922 to 28,002,000 quintals in 1923.

[d] The figures for Ireland included here are for 1922. Figures for 1923 not available.

against each other, and the British farmer and the farmer overseas likewise pull against each other. But the interest of the lower-cost foreign producer and the British consumer pull in the same direction, and it is this combination which has won, the actual course of affairs in England being dictated still by the traditional policy of getting food and raw materials from the cheapest source.[1] Wheat has

[1] The willingness to rely on the overseas producer is all the stronger because so many of the producing areas are situated in the colonies and dominions of the British empire. The recurrent pressure for "imperial preference" should be borne in mind in considering the British agricultural situation.

been too cheap abroad for the English farmer to find it profitable to expand his production,[1] and the same may be said of beef and pork and wool and numerous other products. The industrialization of Great Britain is too great to expect effective subsidies to agriculture under such circumstances.

[1] Sir James Wilson, writing in The Price Current–Grain Reporter, of Nov. 14, 1923, analyzes the wheat situation from the English point of view as follows: "During the last twelve months the growing prospect of an accumulation of exportable wheat has led to a considerable fall in the world price of wheat, and the average price at Liverpool of foreign wheat is at present about 14 per cent below what it was twelve months ago, but is still 18 per cent above what it was on the average for 1913. In England and Wales on the average of the five years 1909–1913 the average price obtained by farmers for their wheat, according to the corn returns, was 33/ 4d per 480 pounds. For the week ending October 27, the average prices were—in 1913, 30/ —; in 1922, 41/ 6d; in 1923, 39/ —; so that the price now obtained by farmers is about 6 per cent below the price they were getting last year but is still 30 per cent above the price in the corresponding week in 1913. As the index-number of wholesale prices in this country is about 50 per cent above the level of 1913, and the cost of living (on which wages largely depend) is 75 per cent above the level of July, 1914, it is little wonder that many farmers no longer find it profitable to grow wheat, except on land specially suited for that crop. This state of things must tend to a further reduction in the area sown with wheat in this country. The probable gradual increase in the world's surplus of exportable wheat, for which a market can not be found at present prices, and the consequent competition between the five principal exporting countries, all of which have considerable surpluses to dispose of, must tend to a further fall in the world's price of wheat in the near future. Such a fall would in its turn tend to a reduction in the area sown with wheat; but so far, except in Great Britain and perhaps in the United States, the indications are that the area under wheat next harvest will be larger than this year; and, unless the weather proves very unfavorable for the world as a whole, there is no likelihood of a scarcity of wheat during the next two years."

The agricultural price level to-day is not one at which the English farmer can afford to expand production, nor is it one at which American producers can afford to continue exports in their present volume. The higher level of agricultural prices which would make our exports profitable would also stimulate British farming. But such a level of food and raw-material costs would make it harder for British industrialists to sell their product in the markets of the world. Even now the English textile interests are fearing that they have lost permanently the hold upon some parts of the trade which they had ten years ago. Sober business men are talking about the overindustrialization of Britain and thinking of emigration as a means of relieving unemployment. It is quite possible that the push from the British Isles and the pull from her dominions overseas may cause emigration to attain a figure large enough to be a significant factor in the decline of our future British market. Until a reasonably complete restoration of the countries of Central and Eastern Europe shall give back to Britain some of her most important pre-war markets, it must result that her importing power will be curtailed (especially if she is to keep up debt settlements). Whether she will draw these smaller imports as largely from the United States as she has done in the past or more largely from Canada, Australia, and other parts of her empire, or from Denmark, Russia, and Argentina involves questions which we shall consider in connection with these latter countries later in this chapter and in Chapter VIII.

On the Continent, where exchange rates have been worse, export trade more seriously curtailed, and transportation and credit difficulties greater, the turn toward home supply has been more marked than in Great Britain.

In France there has been a substantial increase in food production, more in fact than appears merely on the face of the statistics. Wheat growing was expanded in the southeastern departments during the war and some of this gain has been maintained. At the same time, wine production has been rendered less profitable by disruption in Germany, unemployment in England, depression in the Scandinavian countries, and prohibition in the United States. As a result, vineyards are being relatively neglected in the greater interest now turning toward food production. Weather conditions obscure the trend in such a short series of figures, but some conclusion may be drawn from the following table:

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN FRANCE, 1913 AND 1919–1923

(000 omitted)

Year	Wheat	Oats	Potatoes	Wine	Vineyard Area	Cattle	Sheep	Swine
	Quintals	*Quintals*	*Quintals*	*Hectoliters*	*Hectares*	*Head*	*Head*	*Head*
1913	[a] 88,627	[a] 53,483	[a] 143,371	[a] 50,226	[a] 1,628	[b] 14,788	[b] 16,131	[b] 7,036
1919	50,918	26,101	85,106	55,248	1,584	12,789	9,022	4,389
1920	64,482	42,298	116,378	56,759	1,578	13,217	9,406	4,942
1921	88,034	35,483	83,097	45,017	1,592	13,343	9,600	5,166
1922	66,220	41,842	126,461	70,208	1,588	13,576	9,782	5,196
1923	79,054	54,790	95,339	57,164	1,590			

[a] New boundaries. Average production, 1909–1913. The wine figure is depressed by a yield only about 50 per cent of normal in 1910.

[b] Old boundaries.

It should be remembered also that France has developed a valuable and near-by source of supply of wheat and some other products in her north African dependencies, and that the outcome of the war gave her other colonial possessions in Africa to whose development she will doubtless apply herself. On the whole it seems fair to suppose that in the future France will very largely look to her Continental neighbors or to her own African empire for such food supplies as she fails to produce within her own borders. The only food imports for which France in the past has had any considerable and permanent dependence upon the United States were pork products, though wheat imports had been considerable in certain years of poor domestic yields.[1] Both of these imports had declined to a low point by 1913. In the matter of wheat, the exports from this country to France fell again to about the pre-war level in the calendar year 1923 and, with an excellent crop in both France and Algeria this year, it is the consensus of opinion that France will need to draw on outside sources little if any in 1924. She still endeavors to hold consumptive requirements down as much as possible by milling restrictions which call for a high extraction of flour and the use of numerous wheat substitutes. Consumers have, however, recently forced a lowering of the import duty on wheat.

French takings of pork products were low in 1922,

[1] For instance, 17,514,000 bushels in 1898 and 14,032,000 bushels the preceding year. Even these figures had been more than doubled during the eighties.

but in 1923, with a flood of low-priced hogs in the United States, the import figures rose somewhat. However, bacon, ham, and lard exports from the United States to France were lower in December, 1923, than in the same month of the previous year; and there is no reason to suppose that they will not shortly return to or below their pre-war figure. The following table presents figures of these two lines of exports since 1910:

EXPORTS OF WHEAT AND PORK PRODUCTS, UNITED STATES TO FRANCE, 1910–23

(000 omitted)

Calendar years	Wheat	Bacon, hams, and lard
	Bushels	*Pounds*
1910	2,933	908
1911	637	31,865
1912	3,133	28,614
1913	5,353	11,223
1914	26,130	27,178 [a]
1915	32,334	82,154
1916	23,319	118,692
1917	11,676	143,667
1918	6,386	164,675
1919	27,591	377,930
1920	26,445	100,006
1921	8,988	53,655
1922	13,022	29,730
1923	5,439	57,136

[a] Ham exports 1910–14 inclusive are estimated, as they were so small as to be included under "Other Europe."

Next to the United Kingdom, Germany was the greatest food-deficit country in Europe before the war. While Germany had by no means neglected her agriculture during the period of rapid industrialization from the Franco-Prussian to the Great War, she was far from keeping home production up to the level of her growing population and rising standard of living. Since the Armistice the factors of her problem have been altered by (1) loss of population through war casualties, emigration, and a check to natural increase, (2) loss of some of her superior agricultural areas, (3) lowered standard of living, (4) reduced purchasing power as a result of declining export of manufactures, and (5) renewed interest in agriculture.

It is not to be supposed that Germany could become agriculturally self-sufficing within any reasonable period of time. Such a change could come about only in the event that industrialism in any real sense should be definitely and permanently killed in Germany. The territory lost in the adjustment of boundaries includes important agricultural resources of the country and leaves the present Germany more predominately industrial than the old Empire.

At the same time it must be remembered (see p. 21) that the recruiting of German factory workers in the days of prosperous industrial development drew so heavily on the peasant population as to exert a distinct restraining influence upon German agriculture. A permanent curtailment of German industrialism would undoubtedly turn the tide of

population in the opposite direction and result in a much fuller exploitation of the agricultural possibilities of the country. Today considerable numbers of urban dwellers hover on the verge of starvation while farm people enjoy a standard of comfort distinctly better than what they have been accustomed to. In the crash of the mark they were enabled to liquidate indebtedness and add to equipment and property and have today a reserve productive power distinctly above the actual output shown by statistics. Likewise the checks to population both through undernourishment and emigration affect the cities rather than the country, so that the tide of population now drifts in the direction opposite to its former course.

Actual figures of crop yield and numbers of livestock shown in the accompanying table indicate

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN GERMANY 1913 AND 1919–1923

(000 omitted)

Year	Wheat	Principal cereals [c]	Potatoes	Cattle	Sheep	Swine
	Quintals	*Quintals*	*Quintals*	*Head*	*Head*	*Head*
1913	[a] 40,440	[a] 258,371	[a] 440,234	[b] 20,994	[b] 5,521	[b] 25,659
1919	21,503	142,305	212,618	16,318	5,341	11,518
1920	22,476	138,009	278,772	16,806	6,150	14,178
1921	29,338	166,764	261,514	16,791	5,891	15,818
1922	19,577	128,148	406,650	16,317	5,566	14,679
1923	28,968	178,119	325,802	16,653	6,094	17,226

[a] Present boundaries.

[b] Old boundaries.

[c] Includes wheat, rye, oats, and barley.

that 1923 was distinctly the best post-war year for German agriculture. Even this showing,[1] though creditable, is by no means to be taken as a measure of what might be expected, were more settled currency conditions brought about. At the present time the farmer abates his effort somewhat short of the maximum which he could produce. This is due to the depressed condition of the urban market and the demoralization of the currency. It has been extremely hazardous for the farmer to make outlays for the production of a crop for sale in the commercial market months in advance. Uncertainty as to money values and the increased amount of unemployment have discouraged the German farmer and inclined him but little toward further labor and risk after his own needs have been provided for. As a result, industrial Germany has even in 1923 been forced to buy abroad some products which under more ordinary conditions of currency and transportation could have been procured within her own borders. If progress toward better exchange conditions can be made in 1924 German agriculture will doubtless respond quite favorably to this improvement, but if on the

[1] There is perhaps more than the ordinary question as to the accuracy of these statistics. It has been asserted that the figures for 1913 are about 10 per cent too high. In recent years on the other hand it appears that farmers tended distinctly to understate their yields or amounts of property on hand in order to escape the burden of taxation or to avoid measures designed to force them to dispose of their property in an unfavorable market. Figures for the last year or two, therefore, are generally regarded as being below the facts.

other hand the present demoralization continues and grows worse the power to import agricultural produce from abroad will fall off still further.

During 1923 our wheat exports to Germany have turned sharply downward toward the disappearing point; and corn, which amounted to 30 million bushels in 1922, dropped to the negligible figure of less than 5½ million bushels, disappearing entirely in the later months of the year after the new crops were available.[1] Lard on the other hand has moved to Germany in such volume as to surprise observers and to constitute one of the chief props of our overloaded hog market. German importers in 1923 took nearly 377 million pounds of American lard, thereby surpassing their own previous record of 239 million pounds in 1898 and beating the United Kingdom's high mark of 310 million pounds (1918).

This seeming paradox is in fact a perfectly natural development. The pinch of necessity has been so keen that major effort has had to go first toward producing primary human food, and the production of feed and the building up of live-stock production has had to take second place, while the minimum necessities in the way of animal food were sought from the cheapest available source. For the production of pork and lard, the cheapest animal foods, the corn belt of the United States has a greater

[1] Roumania (see p. 196) has returned this year to her traditional position as an exporter of corn to her European neighbors. It is of some interest that, while our wheat exports to Germany have fallen off so drastically, rye has only dropped to 11.5 million bushels from the 1922 figure of 12.6 million bushels. Wheat flour exports have only dropped from 1.5 million barrels to 1.2 million barrels.

relative advantage than any other large area in the world. Thanks to a succession of large corn crops here and the exigencies of the American farmer's position, there have been tremendous receipts of hogs at American packing plants during the last year, with prices falling to very low levels, particularly in the closing months of the year. Extraordinary exports of lard to Europe in general and to Germany in particular [1] have enabled these countries to conserve their own supplies and to make excellent progress toward building up their herds. In this, the more abundant crops of the year 1923 have been a great aid.

Before rushing to the conclusion that what has been happening during the last year is destined to continue as a permanent and satisfactory export trade two particular considerations need to be taken into account. We have mentioned the fact that the final collapse of the German mark during 1923 resulted in checking very severely the sale of produce by the German farmer to his fellow citizen in town. Finding it difficult to secure payment in anything other than a currency that was worthless or fast becoming so, he has preferred to hold his product on the farm, feeding crops to livestock and thus storing up wealth against a day of better marketing conditions.

[1] It is understood that a considerable amount of these lard imports into Germany have ultimately been distributed to other countries to the east and south in exchange for products of which they had a surplus and Germany a need. The volume has been so great as to seem disproportionate to consuming conditions in Germany.

This situation has been revealed in a marked falling off of live-stock killings at German slaughter points during 1923. In fact the holding back of swine became so pronounced that by December the government seriously considered measures to force the peasants to market their surplus stock. However, the temporary stability given to the currency about that time by the rentenmark somewhat relieved the situation. A press despatch from Berlin dated January 21, 1924, calls attention to a drop of about one-third in the imports of American pork products into Germany in the two months or so preceding. Rather jubilantly it attributes this to the success of the rentenmark, saying: "The rentenmark reestablished the German currency on a gold basis, prices immediately jumped, and the German farmers who, since 1920 had been allowing live pigs to overrun their houses and farms, unloaded them on the market for the good rentenmark. American exporters suffered."

This interpretation of the matter must be viewed in the light of the fact that exports of American pork products to Germany showed a substantially similar decline in the closing weeks of 1922. This suggests that a seasonal influence is at work, but still leaves considerable room for the belief that live-stock resources have been substantially built up during the last year and that the coinciding of the normal marketing period with more favorable currency conditions will tend to bring out these supplies in volume sufficient to lessen considerably the demand for American imports.

A second influence at work arises from conditions of production in the United States. We have alluded to the heavy supplies of hogs in this country. At the same time our 1923 corn crop, though large, has been inferior in feeding value and the price of merchantable corn has been relatively high. This has cut down the prospects of profit for hog raisers and has precipitated a considerable liquidation of stock during the last few months. It is probably not too much to say that Europe has enjoyed its last great feast of bargain-priced hog products from the United States. The American farmer certainly does not see agricultural prosperity in terms of exporting 377 million pounds of lard to Germany by producing hogs to sell at $6\frac{1}{2}$ cents a pound at the country shipping point. The estimate of livestock prepared by the United States Department of Agriculture as of January 1, 1924, shows a decline of 3 million head or 4.3 per cent in the number of hogs on farms as compared with the preceding year. While American farmers are thus curtailing their operations in this field, German farmers may be expected to continue a moderate expansion on the basis of more abundant supplies of feed either home grown or produced in the near-by countries of Europe.

Finally, it may be mentioned that in proportion as conditions of general prosperity return to Germany they will doubtless have some influence in the direction of curtailing rather than expanding the demand for our hog products. The heavy consumption of lard, cheapest of animal foods, has gone with

a very low standard of living. Greater prosperity would permit the substitution of more expensive meat items and more margarine and butter in the German diet. Likewise, the revival of an export surplus of manufactured products will give her power to buy tropical oils, and even olive oil from the Mediterranean countries. Figure 44 (p. 306) serves to show the relatively slight dependence of Germany on the United States for her grain supply in the immediate pre-war period. Appendix B shows why we were so largely superseded in that market. The later portion of the chart, taken with the known elements in Germany's future prospects, seems to assure our farmers a still less advantageous place in her trade in the future.

Italy was at the outbreak of the war distinctly a deficit country in the matter of agricultural produce. To be sure, her imports from the United States had dropped to a relatively insignificant level except in the case of cotton, cottonseed oil, and tobacco, with minor takings of wheat and lard. Her substantial wheat deficit was made up chiefly from the Danube basin and Russia, America figuring only during years of crop shortage in Eastern Europe. With the outbreak of the war Italy's dependence on American wheat immediately increased, and imports from this source have remained high pending the recovery of Russia. The high price of our grain laid down in Italy under present conditions of foreign exchange has moved the Fascisti government to launch a strong campaign of agricultural education and assistance for the avowed object of making Italy

self-sufficing.[1] Probably this hope will not be literally fulfilled. But Italy is aided by a labor surplus, where France is retarded by a shortage. The Italian production of 1923 shows a marked gain and our exports to her a sharp decline. At the same time Italy has made some purchases from Russia, and it seems sure that she will henceforth find it advantageous to supply herself at home or from her near neighbors rather than from the United States. The high price of our cotton is stimulating cotton cultivation in southeastern Europe, and Italy is also placing greater dependence upon near-by sources of tobacco. Some of the outstanding features of the situation are shown in the table on page 192.

[1] An Italian commission on the high cost of living recently recommended the increase of agricultural production by spreading a knowledge of scientific methods through a system of popular education similar to that so successfully followed by "the extension service" of departments of agriculture and agricultural colleges in the United States. They urged an appropriation of £2,000,000 for demonstration fields and, in the budget as passed, there were unprecedented increases for the agricultural department, although all other departments were rigidly curtailed in the effort to balance the budget. Frequent references to the importance of small holdings in the scheme for the developing of Italy's agricultural resources are to be found in recent writings. Cf. Lorenzoni, G., International Review of Agricultural Economics, pp. 316–349, and note, ibid., p. 443, ff., July–Sept., 1923. An interesting discussion of the prospects of Italian, and particularly Sicilian, agriculture under the influence of pre-war tendencies is to be found in the exhaustive treatise of August Sartorius von Waltershausen, Die sizilianische Agrarverfassung, Leipzig, 1913. Cf. also, Valenti, Ghino, L'Agricoltura e la Politica Commerciale dell' Italia, Rome, 1917.

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN ITALY, 1909–1913 AND 1919–1923*

(000 omitted)

Year	Wheat	Maize	Oats	Cattle	Sheep	Swine
	Quintals	*Quintals*	*Quintals*	*Head*	*Head*	*Head*
1909–13 (average)	[b] 49,896	[b] 25,486	[b] 5,363	[a] 6,199	[a] 11,163	[a] 2,508
1919	46,204	21,806	5,036	6,239	11,754	2,339
1920	38,466	22,683	3,516			
1921	52,482	23,452	5,483			
1922	43,992	19,507	4,422			
1923	61,190	22,378	5,781			

* Data from Internat. Yearbook Agri. Statistics.

[a] Census of 1908.

[b] Figures for 1909–13 apply to the old boundaries. The International Institute of Agriculture has not recalculated these figures according to the new boundaries but states that the yield of the new provinces was as follows in 1922; wheat, 300 thousand quintals; maize, 492 thousand quintals; and oats, 84 thousand quintals.

This shows an excellent recovery of crop production. While official live-stock statistics are not available for recent years, it is reported that numbers have been well maintained and are now increasing somewhat. All this foreshadows the dwindling of market possibilities in Italy for the United States. With the lira quoted at about 4.3 cents as against a par of 19.3 cents, such a trend is inevitable.

The old Austro-Hungarian empire was almost exactly self-sufficient as to agricultural produce. This end was achieved by the internal adjustment of urban and industrial Austria on the one hand to agricultural Hungary on the other. To-day Austria

is distinctly one of the agricultural-deficit countries of Europe; and, thanks to the difficulties of unfriendly tariffs, crippled industry, and extremely disordered foreign exchange, the policy of the Austrian statesmen looks aggressively toward the stimulation of agriculture to make up as far as possible for the loss of the one-time complementary resources of Hungary. It is reported [1] that, while the area in cultivation within the present bounds of Austria is hardly back as yet to the pre-war average, it has shown great progress from the low point immediately after the war. The government is working on a long-time program of agricultural betterment which includes a marked increase in home production of breadstuffs and the development of live stock to the maximum fodder-producing capacity of the country. Animal husbandry is capable of considerable development owing to the broken topography of the country.

The Austrian situation illustrates a significant phase of the problem of Central Europe, viz., the possibility of developing more scientific methods of farming among peasant populations. Undoubtedly there is here a tremendous reserve productive power available for the increase of European home supplies of agricultural commodities. While the process of developing such increases through the use of better seed and machinery and more fertilizer must inevitably move with some slowness among the peasant population of a country just struggling out of bankruptcy, yet its long-time significance as a means

[1] Michael, L. G., The Agricultural Situation in Austria, special report, U. S. Department of Agriculture.

of decreasing the dependence of such a nation on outside sources of supply should not be underestimated. Austria, as it happens, has one possibility of rather rapid improvement of the efficiency of her agriculture through the remedying of the prevalent form of land tenure. Owing to a system of equal division of land among heirs, fields have been so minutely subdivided as seriously to impair the efficiency of operation. This "strip system," not unlike feudal conditions in England, is now in process of reform and its passing will open the way for many improvements in Austrian farming. At best it is not to be expected that Austria will become agriculturally self-sufficient, but the present trend of affairs seems to point to their importing less of the surplus of Hungary and other neighbors, thus leaving the latter a larger supply to export to food-deficit areas in Western Europe in competition with American produce.

II. RUSSIA AND OTHER SURPLUS COUNTRIES

The important agricultural-surplus areas of Europe fall under three general heads: (1) Holland and Denmark, with reference to dairy and pork products and potatoes; (2) the Danube basin for a considerable range of farm products; and (3) Russia as the great exporter of cereals and also of eggs, butter, and several minor items in significant amounts. Poland will now have to be regarded separately since she has resumed her independent status as a separate nation.

Both Denmark and Holland were severely hit by the war, but both are back to-day to at least their pre-war strength as competitors of the United States. Some 9½ million pounds of Danish and Netherlands butter entered the United States in 1923 over a tariff wall of 8 cents. The number of swine in Denmark is to-day markedly above the pre-war figure,[1] and Danish bacon exports in 1923 showed an increase of more than one-half over those of 1922. This bacon has been a keen competitor of our product in our chief market, England. Seventy-five thousand head of live hogs were exported from Denmark in the first eight months of 1923 to the several countries of Central Europe, a substantial number of which are supposed to have been used to recruit breeding herds. This is a rather interesting illustration of the cumulative way in which development proceeds once a certain state of improvement is reached. The beginning of exports of barley and oilseeds from Russia [2] and Roumania lessens the dependence of such

[1] There were 1,467,822 hogs in Denmark in the year 1909 and only 715,909 in 1919. With the addition of the Schleswig territories in 1920 the number rose to 1,115,992. To-day it is 2,853,000. Cattle also are somewhat above the pre-war figure.

[2] "Imports of Russian sunflower and flax seed cake into Denmark have had an unfavorable effect on the American oil cake trade with that country. For the first five months of 1923 these imports from Russia have amounted to between 40,000 and 50,000 metric tons. The price quoted for Russian oil seed cake is about $43 per metric ton, while American cake has dropped from $60 to $56 per metric ton. Imports of oil cake into Denmark follow the course of Danish butter exports, which are now back to the pre-war level. Danish imports of cottonseed cake from the United States declined from 158,000 metric tons in 1921 to 100,000 metric tons in 1922." *Commerce Reports, June 18, p. 755, 1923.*

countries as Denmark and Holland on the United States for corn and other feeding stuffs, and at the same time develops a surplus of swine and dairy animals from which the herds of the depleted countries may be recruited. This process was further assisted by the substantial increase of forage supplies which has now taken place, and foreshadows a lessening dependence on the last great stand-by of America's agricultural export market—lard.

As for the Danube basin the immediate tendency of production has been downward. This was not alone because of the disruptive factors common to all the warring countries, but resulted also from a special slowing down due to the break-up of the old estates. Whatever the social or political disadvantages of the old system of aristocratic land holding, it did result in fairly adequate equipment and skilled supervision. It resulted also in the production of those commodities which were desired in the cities and the industrial states of Europe, since the estate owner desired to enjoy the maximum revenue procurable from the sale of a commercial surplus.

The substitution of peasant land holding and independent operation produced several influences calculated to reduce the agricultural surplus. First, the removal of supervision by the estate manager was accompanied by less intelligent and, in some measure, by less industrious operation by the peasant, now come to be an independent farmer. Secondly, this produced a demand for more equipment and equipment of a different kind just at the time when the capital destruction wrought by the war increased

the difficulties of financing any form of business organization. Thirdly, the peasant, particularly in view of foreign trade difficulties in the face of tariff restrictions and disorganized currency and exchanges, tended to supply his own needs more abundantly than in the past but to abate his efforts at that point rather than to exert himself to produce an export surplus. He was more concerned with his own standard of living, whereas the old aristocratic land holder had desired primarily to get a cash income to spend abroad.

Gradually, however, these difficulties are disappearing. The new democratic governments are seeking to aid the peasants with both equipment and popular instruction in good farm practice. The spur of independence and personal or family ambition will probably in the long run prove a more efficient stimulus than the pressure of the estate manager. It does not necessarily follow, however, that even an increase of total productivity for the country would result in its having a larger export surplus of those commodities required by the neighboring food-deficit countries. This applies particularly to wheat, which has been one of the most important import requirements of European markets.

The trend of peasant production under conditions of greater individual freedom is to raise less wheat and to consume more of it. He is inclined also to raise more live stock; and this, while it contributes in part to the bringing about of a higher standard of living in rural districts, will probably in the

course of a few years tend to diminish the dependence of Europe on outside sources for her supply of live-stock products.

Already the trend of production in the Danube countries is distinctly upward, as shown in the accompanying table. It seems certain that we

PRODUCTION OF CROPS IN FOUR DANUBE COUNTRIES,* 1920–1923
(000 omitted)

Year	Wheat	Rye	Barley	Oats	Corn	Potatoes
	Quintals	*Quintals*	*Quintals*	*Quintals*	*Quintals*	*Quintals*
1920	46,879	10,684	24,370	17,404	89,967	38,253
1921	57,786	11,212	19,275	16,530	59,136	33,777
1922	62,300	11,768	30,255	20,618	68,428	32,290
1923	76,556	14,402	26,172	17,222	(*b*)	(*a*)

* Roumania, Bulgaria, Yugoslavia, and Hungary.

[a] Data for 1923 are not available for Yugoslavia and Roumania. Production of potatoes in Bulgaria and Hungary for 1923 was 17,490 thousand quintals, an increase of 28.9 per cent over 1922.

[b] Data for 1923 are not available for Yugoslavia. Production of corn in Bulgaria, Hungary, and Roumania for 1923 was 66,990 thousand quintals, an increase of 46.37 per cent over 1922.

should count the future capacity of this region as ample to feed and clothe its own people on a better basis than in the pre-war period. For a long time and perhaps permanently it may be expected to furnish less wheat to urban and industrial areas, but probably more in the way of agricultural commodities as a whole.[1]

[1] Czechoslovakia is properly to be classed in the group of agricultural-deficit countries since the manufacturing and trading western part has a consuming capacity greater than the product of the agricultural eastern part. This agricultural portion, however, is adjacent to and partakes of much the same character as the other

In common with other European countries Poland suffered a considerable decline in agricultural production in the years immediately following the war. The consequent advance in prices of farm products accentuated the natural tendency toward agricultural revival, with the result that production to-day is restored to practically the pre-war level. Since 1921, home supplies have been sufficient to meet domestic demand and might have led to a substantial export had it not been for the policy of the government to continue export restrictions designed to maintain a low level of living costs. Naturally this policy has proved very unsatisfactory from the standpoint of the farming interest and has tended to check agricultural revival somewhat.

It may be added that in addition to these artificial restrictions upon export, Poland suffers a handicap at the present time by reason of the difficulties of commercial exchange with her natural customers in Central Europe. In a world of normal economic relationships Poland would find a ready market for her agricultural surplus, particularly rye and hogs, in the industrial centers of Germany and Austria. In the midst of the present industrial and financial demoralization in these countries Poland

Danubian countries here considered. Agricultural output has already returned nearly to pre-war amount, and Mr. L. G. Michael, foreign agricultural economist of the U. S. Department of Agriculture, foresees possibilities of further increase particularly in live-stock production. He says: "It is even possible that Czechoslovakia will in the not distant future compete with American producers for the bacon and lard market of Eastern Germany."—*Rept. Foreign Service 30, Bureau of Agr. Economics.*

finds there but little market for her farm products, while on the other hand she is constrained to protect to the utmost her own industrial interests against imports of manufactures from other European countries. The significance of all this for our problem is in its indication that, here as elsewhere in Europe, there is still a reserve of agricultural productivity, which may be expected to expand as industrial and commercial rehabilitation in Europe may in the future give it the opportunity. To-day the Polish farmer suffers from what seem to him the evils of overproduction quite as much as our own wheat and hog farmers.

As with others of the "succession" states, Polish boundaries have been changed and the comparability of statistics has been difficult to maintain. The table below, however, presents figures for the principal groups as computed by the U. S. Department of Agriculture on the basis of the present boundaries of Poland. Its area in 1923 was 28.8

PRODUCTION OF CROPS IN POLAND, 1909–1913 AND 1922, 1923*
(Present boundaries)

Crop	Average, 1909–1913	1922	1923
	Bushels	*Bushels*	*Bushels*
Wheat	61,871,963	42,377,637	53,351,320
Rye	221,413,804	197,372,090	257,544,521
Barley	68,680,937	59,558,684	81,937,633
Oats	190,513,630	172,621,227	259,867,225
Potatoes	.....	1,220,576,500	903,443,349

* Foreign Crops and Markets, U. S. Dept. Agr., Dec. 26, 1923.

million acres as compared with an average of 32.0 million acres in the years 1909–13.

It was Russia, of course, which was the greatest of the agricultural-surplus countries in pre-war Europe. It was Russia also whose production and export capacities were most seriously disrupted in the period following the war, and Russia to whom the Continental consumer looks with the greatest hope and the American farmer with the greatest fear in the period of rehabilitation now discernibly under way. From the summer of 1914 until the fall of 1923 Russia was completely out of the export market except for an insignificant trickle of farm products which moved to neighboring countries during the season 1922–23. The acreage sown last year, however, increased by perhaps as much as 20 per cent over the previous year, and, while crop yields were not as good as those of 1922, Russia had a surplus estimated by various authorities at from half a million to two and a half million tons of cereals.[1]

As remarked elsewhere (p. 197), the extent of a surplus depends upon how liberally a domestic population is to be supplied. Unquestionably Rus-

[1] The U. S. Department of Commerce reports (Feb. 16, 1924): "The Russian grain-export campaign for 1923–24 is now sufficiently advanced to give some definite idea of her exportable surplus. Up to January 1 over 1½ million long tons of grain were contracted and partly delivered. This was equal to about 13 per cent of her pre-war shipments for the crop year. Of the amount contracted so far Germany has taken approximately 471,000 long tons; Holland, 285,000 long tons; and France, 180,000 long tons. Russian shipments of rye from the last harvest have been slightly more than pre-war, but wheat shipments amounted to only about 9 per cent of pre-war."

sia could well employ the whole or nearly the whole of her product at home if desirable standards of living were the only consideration. As matters stand, however, two other considerations have outweighed the issue of desirable living standards. In the first place the government has found it necessary to take drastic measures to secure a substantial volume of export goods in order to establish their position in the commercial world and to make possible the import of agricultural implements and industrial machinery and raw materials. Internally, it has found it necessary to accept payment of taxes in kind and has thus, without doubt, created a "surplus" by definition in regions which were undernourished, and has exported these so-called surpluses from a country some areas of which were on the verge of famine.

However this may be, one can hardly doubt that the tide of agricultural disorganization in Russia has been checked. During the present year trade relations have been reestablished with the former customers of Russia, including Great Britain, France, Germany, Denmark, Norway, Austria, Greece, Holland, and possibly others. Exports have consisted of cereals, oilseeds and cake, butter, eggs, and minor items. Recognition of the Soviet government by several European powers will doubtless facilitate the establishment of such commerce. though its volume will doubtless remain small for some time.

Obviously Russia is by no means back to her prewar capacity for production and export. Neither

is she in the prostrate condition in which she has lain for the last five or six years. Aside from the difficulties under which her agriculture must labor, the disorganization of her transportation system is another serious drawback. However, her progress, though proceeding somewhat slowly, will quite possibly keep step with such revival of industry and expansion of consuming capacity as the near-by European countries may achieve. Exchange relations being once established with Germany and other industrial centers in Europe, exports of cereals, dairy products, and so forth, will facilitate imports of railway rolling stock, agricultural implements, or other goods essential to the further rebuilding of Russia's productive plant.

While the vast body of the Russian rural population is too inert a mass to give promise of any great burst of production like that of rural America after the Civil War, we may not perhaps have to wait merely for what develops spontaneously from within the country. Enterprising ability may quite possibly be furnished from outside in amount sufficient appreciably to speed up such development. Already it is reported [1] that a recently organized German-Russian Agrarian Company has secured a concession covering 67,000 acres of land in Russia, the whole of which it undertakes to have under cultivation within a period of four years. Italian concessions of much greater magnitude are likewise under negotiation, and careful observers who have studied the matter on the ground believe that this sort of

[1] Press release, U. S. Dept. of Commerce, Jan. 12, 1924.

development by business interests from the near-by import nations may be the most important stimulative factor in the situation.

This is not to paint a rosy picture of Russia restored within any discernible period to the point of productivity it occupied before the war. It suggests merely that, up to whatever limit her agriculture may attain from year to year, she offers a sort of competition which the grain farmer of the United States will be unable to meet on any level of prices and production costs which can now be foreseen in this country. The mutuality of interests between Russia and her European neighbors, taken with their geographical nearness and the currency disorganization common in greater or lesser degree to all of them, assures the exploitation of this source of supply to the limit before recourse will be had to the American market.

While there is very great doubt as to the accuracy and reliability of the Russian statistics of production before and since the war, such figures as are available are presented in the table on page 205.

In attempting to estimate the situation so far as Europe is concerned it is hardly possible to arrive at a correct conclusion by examining the various countries separately. To a considerable extent continental Europe should be thought of as an economic unit consisting, to be sure, of specialized industrial and agricultural areas, but as a whole offering excellent opportunities for commercial interchange of commodities and a considerable degree of self-sufficiency. Reliable statistical authorities seem

to be agreed that there has been no significant gain or loss of population in Europe as a whole during the war and post-war period. On the other hand, there has been a considerable impairment of her industrial position, a curtailed foreign buying power, and a necessarily reduced standard of living among an extensive class of the population. The greater dependence on home resources which has gone with weakened power to purchase in foreign markets has been accompanied by land reforms and ambitious programs of peasant education.

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN RUSSIA,* 1913 AND 1922

(000 omitted)

Year	Wheat	Rye	Barley	Oats	Potatoes	Cattle	Sheep and goats	Swine
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Head*	*Head*	*Head*
1913	[a] 760,191	[a] 747,945	[a] 420,243	[a] 933,562	[a] 756,515	46,345	81,240	13,606
1922	203,778	490,016	116,069	355,664	716,977	[b] 35,025	[b] 47,706	[b] 7,760

* Asiatic and European Russia including Ukraine, present boundaries. Figures from Foreign Crops and Markets, Bur. Agr. Economics, U. S. Dept. of Agr., Oct. 31, 1923.

[a] Average 1909–13.

[b] Figures for two provinces included herein are those of 1920.

Even though a rising standard of peasant living should operate somewhat to offset such increase as may take place in the total productivity of their agriculture, the impaired consuming power of industrial and urban populations will more than counterbalance this unless manufactures and commerce be promptly restored and unemployment effectively

remedied. With the rebuilding of the industrial fabric as yet not begun, while rural recovery is already well under way, it appears now to be inevitable that the Europe of some years to come will approach closer to agricultural self-sufficiency (except for cotton) than has been the case at any time since the seventies of the last century.

Since that time, when we were by all means the most important non-European source of food supplies, several other countries overseas have developed a considerable capacity for agricultural export. The nature of the competition which these countries offer must, therefore, be fully taken into account in any attempt to appraise the probable future foreign market for American agricultural products.

CHAPTER VIII

OUR SOUTH AMERICAN, AUSTRALASIAN, AND OTHER COMPETITORS

Beyond the limits of what Europe finds it possible or economical to produce within her own boundaries, she will naturally turn first to those sources overseas which offer the cheapest supplies, or which fit in most readily with other phases of her foreign trade. On both these counts several areas in the Western Hemisphere have much to tempt the European purchaser.

I. THE WESTERN HEMISPHERE

While Brazil and other countries of northern South America furnish large European exports of tropical products such as coffee and rubber, it is in the temperate region farther south and particularly in the Argentine Republic that the center of competition with American agriculture is to be found. As we have seen in Chapter I and shall see in Appendix A, Argentina came to a position of prominence in the European trade somewhat later than the United States. It is still much more a pioneer country than are we. Its home consumption has not been pushed by urban growth and industrial development to a point where it demands the bulk

of the nation's produce, nor have production costs risen as high as they have in this country.

Since this region was largely cut off from the European market during the height of the war boom, prices and land values were not inflated as they were in the United States. This, taken with the existence of a considerable undeveloped area,[1] means that the countries in the temperate region of South America still present considerable possibilities of expansion to meet such market opportunities as may develop in Europe during the next few decades without pressing their producers into the zone of increasing costs comparable to that which characterizes the present stage of our own development. The labor factor likewise represents a point of relative advantage to our South American rivals. They are quite amply supplied with a class of native and immigrant labor accustomed to low wages and humble living conditions and yet able to meet the labor requirements of the rather extensive type of farming still practiced in that country. If, with the expansion of agriculture in Argentina and the surrounding countries, this labor supply should in the next few years prove inadequate, it would seem reasonable to suppose that the deficiency could be made up from the redundant populations of southern Europe, now quite restricted in their rate of emigration to the United States. Definite steps toward the attraction of immigrants of this class have been made in South America in the past with apparently satis-

[1] It is estimated that the available wheat area is about ten times that now in cultivation.

factory results, these Latin people being readily assimilable into South American civilization.

Since Argentina is by all means the outstanding exporter in the South American group, figures showing the trend of production in that country are presented in the accompanying table. Not alone has

PRODUCTION OF CROPS AND NUMBER OF LIVE STOCK IN ARGENTINA, 1909–1913 AND 1919–1923 *

(000 omitted)

Year	Wheat	Corn	Oats	Cattle	Sheep	Swine
	Quintals	*Quintals*	*Quintals*	*Head*	*Head*	*Head*
1909–13 (average)	40,023	48,694	7,874	[a] 25,867	[a] 43,225	[a] 2,901
1919	59,046	65,710	4,506	27,721	45,767	3,199
1920	42,493	58,530	7,359	27,943	45,996	3,237
1921	51,986	44,750	4,443	28,138	46,134	3,221
1922	53,399	44,732	7,980	[b] 37,065	[b] 30,672	[b] 1,437
1923	70,679	57,444	11,907			

* Since the crop year extends over part of two calendar years the figures are for the crop years 1909–10 to 1923–24. The production is for the crop planted in the year given in the table.

[a] June, 1914.

[b] December 31, 1922.

there been a steady and remarkable growth in production, but there is also a considerable unused capacity capable of further development in proportion as the European market revives. The chief exports from Argentina consist of beef, mutton, wool, cereals, and butter. Part of the butter is shipped to the United States, and our producers have had Argentine competition in mind quite

specifically in the erection of tariff barriers against beef, corn, and wool, and in less degree have valued it as a protective measure against their wheat and butter. In contrast to the charts (figs, 10, 11, and 12, pp. 48, 49) showing how we supplanted Argentina

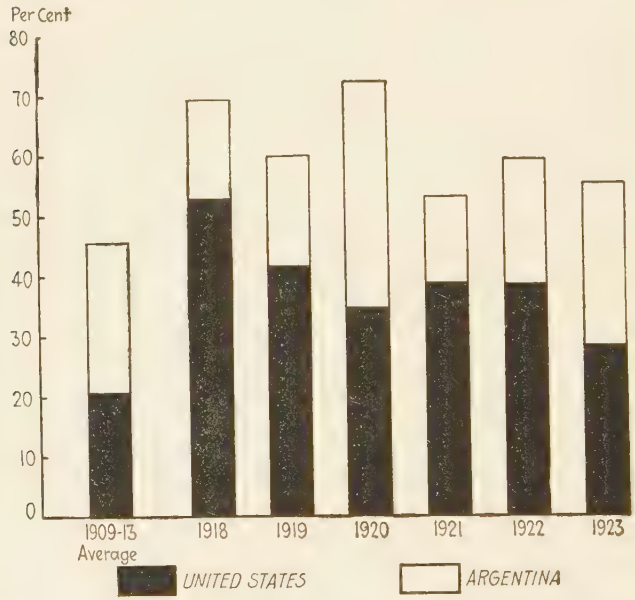

FIGURE 22.—PERCENTAGE OF UNITED KINGDOM IMPORTS OF WHEAT AND CORN COMING FROM THE UNITED STATES AND FROM ARGENTINA (with Wheat Flour Converted to Grain Equivalent).

in the European market during the restricted shipping period of the war, the accompanying charts (figs. 22 and 23) show the rapid recapture of the British market by Argentine producers at the same time that our exports to that market have been dwindling

toward their old-time level. In view of production costs in the two countries, exchange difficulties, and other trade factors, it seems likely that the present

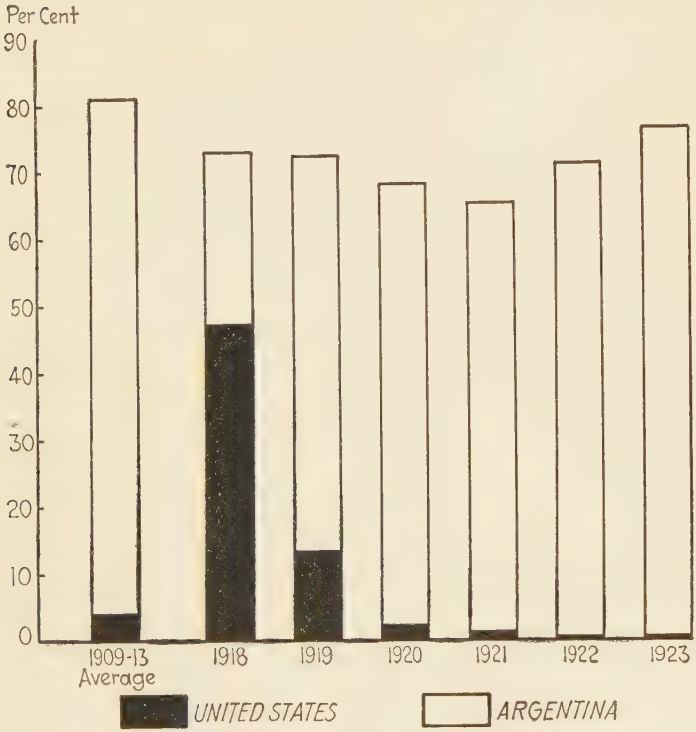

FIGURE 23.—PERCENTAGE OF UNITED KINGDOM IMPORTS OF FRESH BEEF COMING FROM THE UNITED STATES AND FROM ARGENTINA

shift will continue until we occupy a distinctly minor position.

This tendency is strengthened by the fact that development of the commercial resources of South

America is very vigorously stimulated by capital and promotional ability from abroad. This is notably true in the meat trade, in which several of the big packers from the United States have been firmly intrenched for some years—for the purpose of European export, however, rather than that of procuring a product for the United States. English concerns have also been active and have recently achieved a gigantic consolidation of British and native South American interests in both Argentina and Uruguay. Taken together, these British and American concerns, with the keen competition which will inevitably develop between them, can be counted on for exploiting the live-stock possibilities of South America quite adequately. Undoubtedly this will virtually exclude the United States from the beef market of Europe; and we are already in the deficit class as to sheep. In the production of swine, however, our advantages in natural resources and development of the industry put us far in the lead of any of the South American countries. Much talk has been heard for some years of the possibilities of swine production in South America, but thus far numbers are small and progress slow.[1]

[1] Two interesting views of our place in the international meat trade, one British and one American, are set forth in the following quotations: "South America is at present a very important source of [British meat] supply, and potentially it is one of the greatest sources of supply. Roughly, we obtain from South America 44 per cent of our supplies of meat. . . . At present, we derive the bulk of our supplies of South American meat from Argentina and Uruguay. Argentina is now one of our principal sources of supply, the United States contributing hardly anything. Indications, in fact, are not wanting that the time is not far distant when the United States will

In this connection it may be mentioned that from time to time considerable hopes have also been raised concerning the possibilities of cotton production on a large scale in Brazil or elsewhere in South America. Some progress has been made and an actual export movement of a few thousand bales per year now takes place. The difficulties are those of inadequate capital, lack of experience, and poor transportation facilities rather than the absence of soil and climatic conditions suitable to the cultivation of the plant. If the consumptive demand of the world recovers before the planters of the United States find a cheap method of combating the boll weevil, it is quite probable that South America may figure as one of the most promising alternative sources of the world's supply of cotton.[1]

no longer be able to export foodstuffs to any appreciable extent." – *The Statist, London, p. 640, Nov. 10, 1923.*

"The meat trade of Great Britain is fully convinced that the trend of the future will be for a greater and greater production in Argentina, which will overshadow every other source of supply in the world. Next in importance as to the future will be the development of additional supplies from Australia and New Zealand. South Africa, they believe, will show some increase as the time goes on, but not enough to play an important rôle in world commerce. Brazil, with great latent possibilities, will increase, but always remain of less importance than its potentialities warrant, chiefly by reason of disease and the enormous difficulties of efficient production under tropical conditions."—*The Producer [official organ of the American National Livestock Association], p. 7, October, 1923.*

[2] " There are millions of acres of suitable land in the valley of the San Francisco river [Brazil] which can be bought at from 10s. to 15s. an acre freehold. The [cotton] plant rises here to the dignity of a tree and yields two crops a year for five years. An acre of land will yield 7 hundredweight of lint and 14 hundredweight of seed, so that the value of a crop, taking the seed to be worth £5 a ton for

Another rival whose competition in the European market must be counted upon is Canada. Owing to her climatic limitations and the nature of her resources, her competition is chiefly in wheat. However, her production of swine is not negligible, and thanks to the success she has had in meeting the existing requirements of the British bacon market since the war her competition in this field also is distinctly felt by our producers at the present time. The production of wheat in western Canada is a matter of relatively recent growth, the total product

cattle feeding, would amount to $3,008, or in English money about £60 an acre. Taxes on agricultural land are so low—about .02 per cent—as to be hardly existent. . . . The cotton districts are high, breezy, and healthy, and fevers are unknown. Steamers ply on the San Francisco and, although distances are great, the lint is carried at fairly economical rates. There is no doubt that in a few years this vast cotton-growing area is destined to play a very important part in the world's supply of this commodity."—*The Manchester Guardian Commercial, p. 7, Jan. 3, 1924.*

Before leaving this South American discussion it may be interesting to note another utterance of The Statist (p. 500, Oct. 13, 1923), in an editorial on the economic possibilities of British Guiana. The editor says: "There is a general consensus of opinion that one method whereby we may hope partially to retrieve the disasters and mistakes of the late war is by finding means to increase enormously our supplies of food and raw materials upon a reasonable basis of values. . . . Provided a railway or other means of transport were available which would connect, say, the western Carribean with the Atlantic seaboard—in other words, bisect the very center of the continent—there can be no reasonable doubt in the minds of anyone who has any real acquaintance with South America, that its potentialities as a food producer and as a producer of practically all the raw materials required in the various industries carried on in this country should be increased to so great an extent that it would enhance very appreciably the purchasing power of money in this country."

having been but 68 million bushels in 1898 when we were at the height of our export movement (149 million bushels). The accompanying table shows the production of Canadian wheat in recent years. During the same period Canadian wheat exports rose from 152 million bushels (1913) to 293 million bushels in 1923. These figures of wheat production and export should be read in the light of the statement of careful students of the wheat resources of

PRODUCTION OF CROPS AND NUMBERS OF LIVE STOCK IN CANADA 1913 AND 1919–1923 *

(000 omitted)

Year	Wheat	Rye	Barley	Oats	Flax	Cattle	Sheep	Swine
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Head*	*Head*	*Head*
1913	231,717	2,300	48,319	404,669	17,539	6,656	2,129	3,448
1919	193,260	10,207	56,389	394,387	5,473	10,085	3,422	4,040
1920	263,189	11,306	63,311	530,710	7,998	9,572	3,721	3,517
1921	300,858	21,455	59,709	426,233	4,112	10,206	3,676	3,905
1922	399,786	32,373	71,865	491,239	5,009	9,720	3,264	3,916
1923	474,199	23,232	76,998	563,997	7,140	9,246	2,754	4,405

* Data from Dominion Bur. Statistics.

Canada to the effect that she has some hundred million acres of wheatlands still available for development in addition to the 22 million now under cultivation. Production costs in Canada are, upon the testimony of our own Tariff Commission, much below those in the United States. This fact is made the basis for a tariff of 42 cents a bushel on Canadian wheat entering the United States. Such a tariff, however, can only accentuate the movement of Canadian wheat to British or other European

markets, whence it, together with the low-cost wheats of Argentina and Australia, will surely and none too slowly drive out our American product. The capacity of these new countries to expand production on a constant basis, or with costs rising but slowly as compared with the level in the United States, foreshadows clearly the end of wheat export from the United States to Europe under any scale of European reconstruction now discernible.

II. AUSTRALASIA AND INDIA

Turning from the Western Hemisphere, another seat of serious agricultural competition is to be found in Australia and New Zealand. New Zealand is the greatest exporter of dairy products, in proportion to her size, that the world affords. This means little at present to the American farmer, since we are even now importers of dairy products. It does, however, have some significance as showing with what competition our dairy industry would be confronted were the shift from unprofitable wheat and hog farming to proceed far in the direction of dairy expansion so strongly urged in some quarters.

The Australian area is significant primarily as a heavy export center of wheat, mutton, wool, and beef. Here again we enter a field of little immediate concern to the American farmer, since we are ourselves clearly out of the beef-export business and are importers of wool. It may be interesting, however, to note in passing that even under the cheaper conditions of a thinly populated region the Australian

beef producer is being hard put to it to maintain his industry in the face of Argentine competition in a depressed European market. The Australian government is undertaking to assist the industry in weathering this difficult period by means of an export bonus and the support of various cooperative organizations.

The position of both Australia and New Zealand in the sheep and wool business is significant chiefly in indicating the limits to which the sheep business in our own country can be stimulated even under conditions of tariff protection.

In all this, however, it is worth bearing in mind that Australia is a land larger than the United States and only meagerly developed up to the present time. Even though the proportion of waste land is considerably higher than that in our own country, it yet possesses great undeveloped resources and is likely to have its production somewhat stimulated as a result of the "internal colonization" now being fostered within the British Empire. Among other things, its competition will have to be reckoned with by us in our hopes of developing an Oriental wheat market for our Pacific Coast producers as well as in our efforts to hold our wheat market in the European countries.

Wheat production in Australia had grown from an annual yield of 23 million bushels in 1880 to 90 million bushels as a five-year pre-war average. The industry was retarded rather than stimulated by the war, owing to the great distance from market and scant transport facilities. Since the war

the wheat grower has been discouraged by low prices in Europe and ocean freight rates which, at least until 1921, were abnormally high. The crop of 1921, however, touched the high mark of 146 million bushels. As in both Argentina and Canada, domestic consumption takes but a relatively small proportion of the wheat crop of Australia, thus presenting a very difficult type of competition for the American producers to meet, particularly in years of unusually large crops. The part which Australian exports played in the general movement to supersede the United States in the wheat markets of Europe is well illustrated by the import figures of the United Kingdom. The imports to the United Kingdom from Australia and from the United States respectively are shown below:

	From Australia	From United States
1898–1901 average (cwts.).....	3,091,201	61,643,237
1910–1913 average (cwts.).....	12,923,077	26,638,919

Like Canada and the Argentine, Australia continues to expand her wheat acreage. It averaged 7.6 million acres in 1909–13, rose to 9.8 million last year and is reported (International Institute of Agriculture) as 10 million for the 1924 (spring) harvest. The largest total exports of wheat from Australia before the war were only about 55 million bushels, whereas exports in 1921 amounted to nearly 102 million, followed by nearly 69 million the following year.

In addition to her reserve capacities in the pro-

duction of cereals, meat, and dairy products, the countries of Australasia have also horticultural possibilities which are far from negligible. The Australian government has extensive irrigation projects now under way which will add materially to these resources. In view of the fact that our own dried-fruit industry is rather overexpanded, the competition of the Australasian product in the markets both of Europe and the Orient is likely to prove significant.

Another Asiatic competitor calling for passing notice is India, particularly in the matter of wheat and cotton. Unlike the countries we have just been passing in review, India has a dense population and a consuming capacity which would quickly wipe out any surplus were her own people in a position to satisfy their food and clothing demands on an adequate basis. As it stands, India is the largest single exporter of cotton outside the United States. This product, however, is of an inferior grade, and goes largely to the mills of Japan and China rather than to European markets. Since there is little prospect of improvement in quality or marked expansion in production, competition from this source is not keen. Similarly wheat exports are significant only in years of favorable weather conditions, when there is such an abundance of the cheaper food products as to release a wheat surplus for export. Under conditions of scientific farming the output could be considerably increased, but before such a development could take place there would have to be a raising of the social conditions

and education of the lower class of the Indian population which presumably would be accompanied by such a rise in the standard of living as would cause consumption to keep pace with the enlarged production. It is in the new countries of sparse population and scantily developed natural resources that we shall find the conditions most favorable for the supplying of Europe with low-priced foodstuffs and raw materials in the future.

III. SOUTH AFRICA

Among such possibilities the several countries of South Africa are by no means to be overlooked. The trade as well as the political relationship in which these countries stand to Great Britain and other European countries promises a constructive effort toward their further exploitation, the furnishing of necessary capital, and the emigration of a much-needed labor and supervisory force. South Africa has considerable dairy and live-stock possibilities and is being experimentally developed with reference to both fruit and cotton. At the present time small exports of maize enter the European market from this source.[1] All in all it would seem that South Africa is to be classed as a secondary reserve for the development of European imports after the

[1] The U. S. Department of Commerce reports (press release, Oct. 19 and Nov. 6, 1923) that the Union of South Africa exported over 6 million bushels of maize in the year ending June 30, 1923. The crop was larger this year and the export surplus is estimated at 21 million bushels.

possibilities of the Argentine, Canada, and Australasia have been somewhat more fully developed. It seems likely, however, that South Africa will be a significant competitor in the European market before the United States could return to a position of great importance in that market with reference to any farm products except cotton, tobacco, and pork products.

Indeed there is some ground to believe that unless the problem of low yields and high costs in our cotton industry is met with reasonable promptness we may find in South Africa a somewhat formidable competitor in the cotton-consuming markets of Europe. The Empire Cotton Growing Corporation has made a thorough survey of the area and, in a careful and conservative report,[1] recommends the development of this territory as a practicable source of cotton which might be expected to yield, after ten years or so of development, some half million bales or even a million bales annually. That cotton-growing development along these lines is to be looked for seems likely from the latest reports coming from England. We read:

> The Government intends in the next session of Parliament to obtain sanction for the construction of a new line of railway from Somkele to the Pongola, which is regarded as the first step towards the creation of a great cotton-growing industry. Experts from Lancashire have toured most of the likely cotton-growing lands in South Africa, and, subject to the attainment of reasonable standards of production, they give the assurance of a big development

[1] Cotton Growing in South Africa, London, 1923.

within the next ten years. Zululand contains some of the finest belts for the growing of the plant in the world, and extensive pioneer work in cotton cultivation along the Pongola had been carried out for some time past, and the land is ripe for exploitation. The construction of the Somkele-Pongola railway would give a great impetus to the new industry.[1]

In summarizing the circumstances which will determine the sources from which Europe will supply her needs for those agricultural commodities in whose production the American farmer is interested, six points stand out clearly.

(1) The agricultural productivity of Europe is today definitely recovering through the individual efforts of producers and the conscious policy of governments. While not yet back to a parity with pre-war conditions, it seems clear that it will come back to that figure or even exceed it in proportion as the European market is restored.

(2) As yet industrial productivity is below the pre-war mark, which reduces the power of European countries to buy even such supplies as are now produced at home. This demoralization of the farmers' market is greatly accentuated by the impairment of transportation facilities and the collapse of paper currencies.

(3) Such foreign buying of agricultural products as is being done today or will be done in the years to come naturally follows the line of greatest relative advantage. The European buyer seeks those

[1] Manchester Guardian Commercial, Jan. 17, 1924.

countries whose extensive agricultural development means low production costs and whose relatively scant industrial development means a favorable selling market for the manufactures of the European importing country.

(4) Figures of present production and potential resources indicate that the needs of Europe for most agricultural imports can hereafter be supplied in countries such as Argentina, Uruguay, Canada, Australasia, and South Africa more advantageously than in the United States.

(5) The United States producers suffer under two particular disadvantages in the export trade; first, the foreign exchange rate, and, second, the long interior distances coupled with high freight rates. While the distance of the western Canadian producer from seaboard is as great, his rates are distinctly lower.

(6) While it seems quite possible that changes in European agriculture may increase Europe's dependence on wheat imports in case the industrial productivity and urban purchasing power of these countries recover fully, this would apparently work to the advantage of Canada, Argentina, and Australia rather than to the advantage of the United States. At the same time the accompanying expansion of live-stock production in Europe would probably be particularly effective in the case of swine and would thus touch American agriculture in one of its most sensitive spots.

(7) Although the American producer of cotton and tobacco is strategically in a stronger position

than other farm producers, this position is not such as to encourage expansion of even these industries nor long-time plans based on dependence primarily on the export market.

CHAPTER IX

SUMMARY AND CONCLUSIONS

The world has been going through an extraordinary economic upheaval. At such a time two questions arise to challenge every industry and each individual who is a directive unit within it. These questions are: First, what was the real trend of events before this disturbing force intervened; and secondly, will these forces resume their operation as the present disturbance subsides, or are conditions now so altered as to change significantly the pathway of future development?

It has been the purpose in the present volume to view our agricultural export relations in a somewhat lengthy perspective, in order to see the long-time trend in our agricultural development and not be misled by the short-time swings which have taken place within the reach of our own brief memories. This closing chapter, in attempting to focus on our present problem whatever light may come from the eight preceding chapters, will address itself to three issues:

(1) What was the American farmer's outlook in 1914?

(2) Does European "reconstruction" imply a return to that situation?

(3) If essential features of the world's economic organization have been permanently altered, what does this mean to the American farmer?

The conclusions upon these points to which our study leads us will now be summarized.

I. THE AMERICAN FARMER'S OUTLOOK IN 1914

When the news of a European war fell upon the incredulous ears of our people in the summer of 1914, American agriculture stood in a position of quite unusual prosperity. For a period of seventeen years farm technique had been improving, capitalization increasing, prices rising, and the standard of rural life approaching a level seldom if ever enjoyed over any extended time by any large body of agricultural producers. The annual surplus of cereal and live-stock products which had been so large as to depress prices severely in the later decades of the nineteenth century was now being largely absorbed by the vigorous development of our own population and industry, and the production of cotton was keeping within the limits of profitable demand in our domestic and overseas market.

Our national prosperity at the outbreak of the war was not to be measured in terms of a so-called "favorable balance of trade" filled out by heavy exports of low-priced farm products. It consisted rather in the existence of exchange ratios between farm and industrial products which stabilized the several parts of our economic organization in a satis-

factory working relationship. The bulk of our farmers were no longer dependent primarily upon Europe for a market, nor was Europe primarily dependent upon us as a source of food supplies. The United States was proving itself a large enough economic unit and one sufficiently diversified in its natural resources to attain to a high degree of economic self-sufficiency without doing violence to the principle of division of labor and exchange cooperation. To grasp the full economic significance of this situation we need to review for a moment the world relationships in which we had previously stood and the relationship of northwestern Europe to the rest of the world.

As pointed out in Chapter I, the rôle to which pioneer America was most readily adapted was that of exploiting our rich natural domain to furnish cheap extractive products for the industrial nations of northwestern Europe. These were countries whose agricultural resources, none too ample at best, had long since been worked far into the realm of diminishing returns; whose populations were dense; and whose manufacturing development, based largely upon coal and iron deposits, had proceeded to an advanced stage. We saw further, however, that the United States itself possessed rich mineral resources which, once capital and labor supply could be accumulated here or drawn from abroad, rapidly developed a home supply of manufactured products and a home market for a steadily increasing percentage of our agricultural output. The adjustment which took place between our

industries and our agriculture was, of course, furthered by the more rapid accumulation of population in industrial regions than on the farms. Our country being so large and our resources so varied, there was economic soundness in the internal adjustment thus taking place as we passed from the age of economic childhood and pioneering to that of economic maturity and balanced national development.

The situation as it concerns Europe presents two essentially different factors. Taking Great Britain, Belgium, and Germany as the industrial center of Europe, we observe that their population was so dense and their agricultural resources were so meager that such a thing as balancing their agricultural and industrial life within Europe was utterly out of the question. Furthermore, with the Continent divided into more than twenty separate countries, the narrowness of national boundaries precluded any such easy and flexible coordination of the resources of Europe as a whole as had been readily achieved within the wide bounds of the United States. To be sure, a surplus-food area in Europe exported great quantities of cereals, meat, poultry and dairy products, and the like to the food-deficit areas. But even such countries as Russia and Austria-Hungary underwent a considerable amount of industrial development, and population throughout Europe was dense as compared with American standards. This meant that Europe as a whole was a food-deficit area and that the readiest adjustment between this food deficit and surplus manu-

facturing capacity was to be found in those countries in the newer parts of the world which were still in a relatively early stage of agricultural growth and which, through scarcity of population and poverty in the matter of coal and other mineral resources, were ill adapted to industrial development.

While a very great mutual dependence had grown up between industrial Europe and the United States in the latter part of the nineteenth century, this relationship was essentially temporary in its character, and was speedily modified by the progress of our industrial growth. It was, therefore, in such countries as Argentina, Australia, and Canada that Europe was to find areas whose resources and conditions of development alike put them somewhat permanently in a complementary position with reference to industrial Europe. While South Africa is something of a food exporter today and promises further possibilities in this direction in the future, it is not included in the above list because of the fact that its mineral resources seem to promise that its development will be more symmetrical and that it will maintain an internal adjustment more complete than that of the other regions discussed.

In a word, then, the actual situation of the American farmer in 1914 was one of diminishing importance as an exporter of agricultural products to Europe, of approaching balance with the consuming capacity of an enlarging domestic market, and even, in more or less important commodities, of considerable susceptibility to the competition of agricultural imports from Australia, South America,

Russia, and other foreign countries. (See Appendix C, pp. 315–319.) A restoration to the precise point we occupied at that time would therefore mean not only smaller exports of cereals, meat, and tobacco than those actually sent abroad in 1923 (see figs. 16 and 17, pp. 89 and 90) but also an export position which in following years might confidently be expected to decline still further—that is, to continue the downward trend of the pre-war period.

Whether or not we bid fair to return in fact to that 1914 position and outlook is then the second question for us to consider.

II. DOES EUROPEAN RECONSTRUCTION IMPLY A RETURN TO THE SITUATION OF 1914?

The expression, "back to normal" has been assiduously employed during the last four years in the United States, and the word, "reconstruction" has been the peg on which most European discussion has been hung since the war. Though such expressions are natural enough at such a time, and right and useful within limits, it is to be feared that their habitual repetition has both revealed and tended to perpetuate the idea that the single year or period of a few years immediately preceding the war represented some sort of a fixed adjustment which had in it the essentials of permanent rightness and to which we should expect to return.

As a matter of fact we all know that 1914 was not a "normal" year any more than any other single year is, nor were the conditions at that time a static

state which would have preserved their own blessed equilibrium even if the war had not intervened. The timepiece of economic evolution can not be set back five years and much less ten years. We should, therefore, endeavor to keep clearly in mind not merely what *was*, but what *was developing*, in 1914. This we have discussed in Part I and have summarized in the previous section of this chapter (p. 226). With these trends in mind we can now ask how the disturbing influences of the war period have accelerated, retarded, or redirected any of these forces and what sort of new world relationships may be expected to grow out of the present situation.

The "reconstruction" of Europe as it existed in 1914 would mean a Europe of flourishing factories, thriving commerce, and unrivaled financial power. Today the factories are not flourishing, commerce does not thrive, and the financial power of Europe has been impaired if not crippled by the events of the war. Not alone did those four years involve a tremendous destruction of property, but also the center of capital control has shifted from Western Europe to America. The resulting increase in international payments coming here makes European import buying more difficult. At the same time the level of general prices in the United States apparently establishes farming costs on a relatively high plane for some time to come. These two influences operate together to lessen greatly the availablilty of this country as a source of agricultural imports for Europe. Only if we undo the financial changes of the war, only if Europe

recovers her wartime losses in this direction and also in industry and trade, can the old situation be reconstructed.

Not merely is the foreign purchasing power of Europe today seriously impaired, but also the most sanguine hope offered by any of the reconstruction projects now under way hardly promises more than to stem the tide of further economic dissolution and to set up the slow process of returning to solvency. Furthermore, along with the lessened purchasing power of our one-time customers abroad, there has gone, as shown in Chapters VII and VIII, a revival of agriculture in Europe and an expansion of farm production by our chief competitors elsewhere.

The Europe which can be "reconstructed" out of the shattered materials left by the Great War will be one of greater self-sufficiency, more meager standards of living, and careful searching for the cheapest sources of food and raw materials while capital losses are being so far as possible made up and debt obligations being adjusted. There is no use blinking the fact that our farmers can not afford to produce the present quantity of exports at the present level of costs for the low-price European market nor can European consumers afford to buy any great proportion of their needed agricultural supplies in our relatively high-price market.

Our second question then is answered by the statement that we are returning to the position of declining agricultural exports of 1914, further accentuated by the events of the war, and its after effects.

III. WHAT DO DECLINING EXPORTS MEAN TO THE AMERICAN FARMER?

It has not been the purpose of this book to maintain that Europe stands upon the brink of economic dissolution, nor to suggest the desirability of an air-tight self-sufficiency for an economically isolated United States. But we do find that between 1914 and 1918 a very complicated and delicate economic system suffered a great collapse. Whether indeed that old economic order will ever be restored in its former condition remains to be seen.

While it seems natural for most of us to think of the ultimate European settlement only in terms of Europe as we knew it in pre-war glory, we should keep our minds open to the possibility that such a restoration may not in fact take place. It is conceivable that only a somewhat curtailed industrial life may be revived in Germany and Austria, so limited as to be in stable balance with the agricultural development of the Danube basin and Russia. It is conceivable also that France may balance her economic life largely within Continental markets and food supplies, supplemented by whatever African development she may be able to carry through. Great Britain, with an industrialism overshadowing that of the Continent, may be expected to complement as fully as possible the needs and activities of her colonial domains and other nonindustrial areas, though doubtless without resuming the rate of growth which marked the heyday of her pre-war bloom.

The United States in such a process of development falls to a position of small importance as an exporter of food to European markets, the tendency being toward flour for the tropics and the Orient rather than wheat for Liverpool and Hamburg; toward pork products rather than grain; and toward canned and dried fruits and vegetables and possibly canned and powdered milk for the Orient and the tropics, and probably more rice to Japan and even to China or India in times of crop failure.[1]

The altered circumstances of Europe's economic life have already contributed to a serious decline in agricultural prices in the United States. They have forced some curtailment in our scale of production and a considerable falling off in most important lines of agricultural export. Even with this decline, however, the exports of 1923 were in the main above those of the five-year pre-war average. For several important commodities our present position is shown in figs. 16 and 17 (pp. 89 and 90).

The downward course of cereal and beef exports is striking,[2] and the facts presented in Chapter VII indicate that the recent heavy European exports of these products are to be explained as a lag in the decline of that trade rather than its establishment on a permanently higher basis.

Cotton exports to Europe could hardly be said to have shown any definite downward trend in the period

[1] We exported 359 million pounds of rice in 1922, of which 99 million went to Japan. In 1923 rice exports amounted to 293 million pounds, of which 61.4 million went to Japan.

[2] Though bravely overlooked by the proponents of a Great Lakes–St. Lawrence deep waterway.

before the war. Since the war they have fallen off as a result of short crops in our South as well as low purchasing power abroad. As has been shown in Chapter VII, this shortage and the high price of cotton are stimulating the development of rival sources of supply in other subtropical areas, particularly South America, India, and South Africa but to a lesser degree also in the Mediterranean region and Australia. It appears that any great permanent increase of production in the United States in the future will require the use of rather expensive measures for the control of the boll weevil and possibly also the pink boll worm. This, taken with the general outlook for other items of production cost, seems to promise cotton prices in America which will continue to stimulate production in other lands. In view of the growing capacity of our own cotton mills to consume the bulk of domestic supply, this suggests possibilities of a diminished importance for the European market even in this field.

The mere fact, however, of a lessened and redirected export trade in the future does not necessarily and permanently sound the knell of prosperous American agriculture. The ultimate course of readjustment by which our agriculture must be restored to a condition satisfactory either to the farmer or to the nation presents problems far beyond the scope of the present book. Likewise, no judgment is here either expressed or implied as to the practical wisdom of any of the emergency devices which have been proposed to meet the situation.

We have sought rather to clear the ground by

which one must approach the whole problem of the future policy of American agriculture. Whatever long-time programs or short-time emergency measures may be adopted, wise action can be had only if we appraise the European market at its correct value. This study is directed therefore to that limited objective and leaves to other studies the larger question of what course should be followed in view of the condition disclosed.

As to the condition itself, we conclude that, as a prosperous Europe in the position of a heavy creditor of the United States was declining in importance as a market for our agricultural products at pre-war price levels, a less prosperous (not to say crippled) Europe, shorn of her credits here and our debtor on a tremendous scale, can not be expected to be a good market at present and prospectively higher levels of costs. Hence, agricultural exports may be expected to drop still further in 1924 and thereafter. For American agriculture to plan her future building on the foundation of an expected revival and growth of the European market would, therefore, mean building on quicksand.

APPENDICES

APPENDIX A

AGRICULTURAL EXPORTS DURING THE PERIOD OF GROWTH, 1870–1900

In Chapter I (pp. 24–27) there were presented a series of graphs showing the amounts of our agricultural exports during the years from 1870 to 1900. For the sake of those persons who are interested in analyzing this export trade further there are presented in this appendix some data of a more detailed character which show comparisons of the relative importance of the different commodities entering into the agricultural export trade and of the various outlets in Europe through which this trade moved.

I. RELATIVE VALUE OF THE VARIOUS COMMODITIES EXPORTED

Throughout the greater part of the period under discussion, cotton ranked highest in value among our exports, grain and packing-house products being second and third respectively. Tobacco was a relatively modest fourth. All other products taken together bulked smaller than any one of the four classes mentioned, with the exception of tobacco. The relative importance of the "other products"

group, however, has grown steadily throughout the period, rising from 5.3 per cent in 1870 to 15.3 per cent in 1900. The percentage which each of these four principal commodities or groups of commodities made of the total value of agricultural exports from 1870 to 1900 is shown in figure 24.

Although the *absolute value* of cotton exports mounted steadily throughout the period, this trade did not grow so rapidly as did that in grain and live-stock products and hence showed a considerable decline in *relative position* from the beginning to the close of the period.[1] The extraordinary volume of grain exports in 1879, 1880, and 1881 caused these products to be the largest single item in our export trade during those years, which, however, represented the climax of the movement, although the single years 1892 and 1898 nearly restored the relative position of this class.

The comparative importance of some smaller groups of products and individual commodities is shown in figure 25 (p. 242). Although corn was of large importance, the great bulk of exports in the grain and grain products class consisted of wheat and wheat flour. These, at times, ran as high as

[1] Since the different classes of commodities are here dealt with as percentages of the total *value* of exports, it is evident that the result will be affected not alone by the physical volume of exports but also by the level of prices for the different commodities maintaining in the several years. For example, we may note in connection with cotton that the export price, which averaged 15.7 cents in the three years 1870-72 inclusive, averaged only 9.8 cents in 1885-1887. For data showing changes in physical volume of exports the reader is referred to figures 26–30.

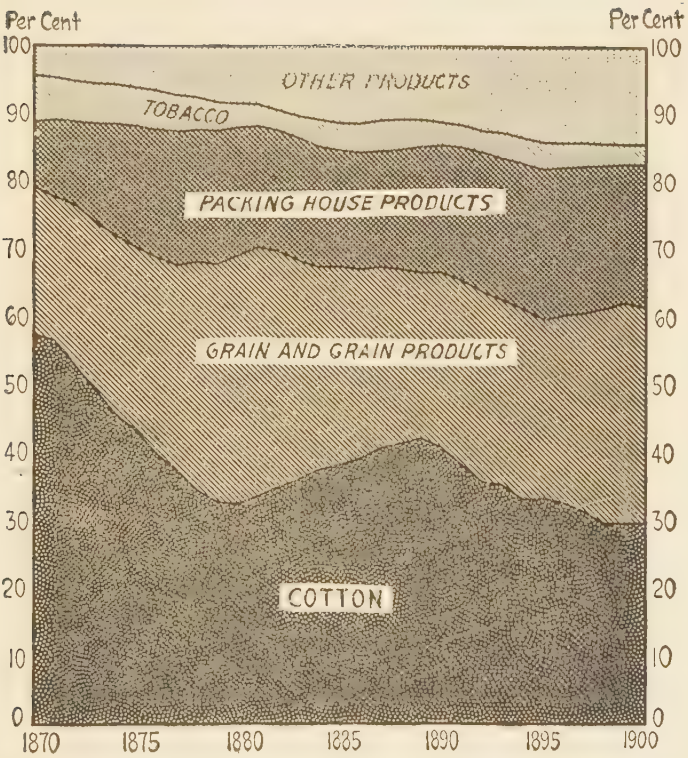

FIGURE 24.—RELATIVE IMPORTANCE OF PRINCIPAL CLASSES OF DOMESTIC AGRICULTURAL EXPORTS FROM THE UNITED STATES 1870–1900.

32.5 per cent of the total value of agricultural exports and were at no time less than 15 per cent.

Of packing-house exports, pork products were of far greater importance than were beef products, mutton being negligible. Beef showed a fairly steady growth in relative importance during the

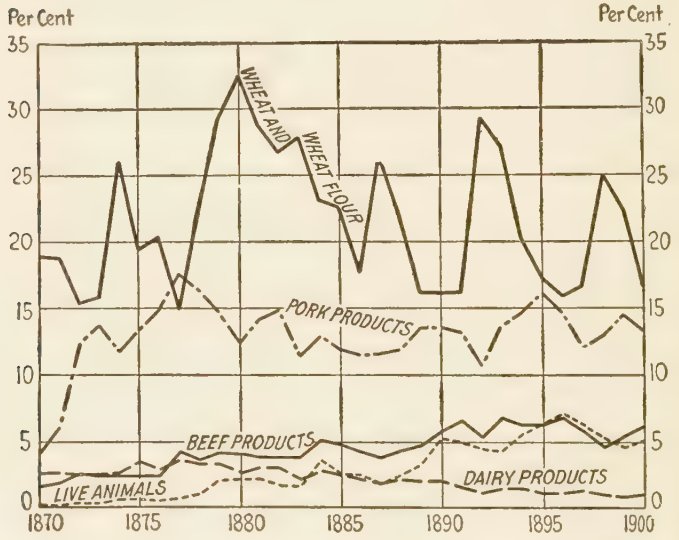

FIGURE 25.—PERCENTAGE RELATION OF SPECIFIED CLASSES TO TOTAL DOMESTIC AGRICULTURAL EXPORTS, 1870–1900.

period; while, except for the first eight years, the percentage which pork products formed of total export values remained almost stationary. Dairy products, on the other hand, were not only less important than beef products after 1876, but after 1877 and throughout the remainder of the period they declined

in relative importance as compared to the total value of agricultural exports.

Of the individual items included in pork and beef products, bacon was the largest. It was seldom below 5 per cent of the total value of exports and at times was more than 10 per cent. However, it declined in relative importance during the period, whereas lard held its own and, at the end of the period, was almost as important as bacon. Hams and shoulders were of negligible importance before 1880, but from that time forward increased steadily until by 1900 they had reached 2.5 per cent of the total value of the agricultural exports, a figure which, at that time, was about half the value of the bacon exports. By 1884 exports of fresh beef comprised somewhat over 2 per cent of the total, reaching 3.5 per cent in 1900.

II. DEPENDENCE OF VARIOUS COMMODITIES ON THE FOREIGN MARKET

Mere volume of exports, however, does not indicate the measure of dependence of a given industry on the foreign market. We must consider also the ratios that the exports bore to the total amounts of the several articles being produced in the country. For example, the value of wheat and wheat flour exports during the period averaged about five times that of tobacco, yet tobacco exports comprised a greater proportion of the total tobacco crop than the percentage which wheat and flour exports were of total wheat production.

Of the major agricultural products, cotton has

depended to the largest extent on the foreign market, tobacco, wheat, hogs, and cattle being next in order of dependence. Throughout the whole period from 1870 to 1900 the annual exports of cotton comprised approximately two-thirds of the entire crop, ranging from a maximum of 72.6 per cent of the crop of 1870 to 65.2 per cent of the crop of 1899.[1]

Exports of wheat, including flour, on the other hand, made up a much smaller proportion of the total production and one which varied much more widely from year to year. The smallest proportion exported in any one year during the period was 16.9 per cent (crop of 1871), whereas the largest proportion was 38.6 per cent in 1891. The year 1893 showed an export percentage of 38.4 and 1878, 1879, 1880, 1892, 1897 and 1900 all registered above 35 per cent. The reason for the great variability is not alone that our production of wheat rose and fell somewhat more sharply from year to year than did the cotton crop, but also that our export trade varied with production conditions in several other wheat-producing areas. The source of European wheat imports shifted from one to another surplus region, whereas for cotton Europe's dependence upon the United States was much more absolute.

Corn exports rose from less than 1 per cent in 1870 to about 6.5 per cent of the total crop in the late seventies while Europe was suffering from short crops of bread grains. Thereafter it dropped to an average of only about 3 per cent until 1895,

[1] These figures refer to the cotton-export year, which is the twelve months beginning September 1 of the year in which the crop is harvested.

when it took a distinctly upward course, nearly reaching 10 per cent in 1897 and averaging over 8 per cent for the five-year period, 1896–1900.[1] The real dependence of the corn industry on the export market, however, is a difficult thing to judge correctly because, while only a small proportion of the corn crop was exported as grain, the corn-growing industry depended upon the beef and hog industry, which in turn depended to a considerable extent upon the foreign market.

As for the live-stock and meat situation, it is impossible to obtain accurate figures on the production of beef or pork for the entire period, but an estimate of the beef production and pork production in 1900 as given by the U. S. Department of Agriculture indicates that 11 per cent of the dressed beef produced in that year was exported. Pork exports, on the other hand, comprised 20 per cent of the production of dressed pork in 1900.[2]

Adequate tobacco production figures likewise are not available before 1900, so it is impossible to determine accurately the ratio of exports to production. From such data as is available, however, it appears that during the last decade of the century roughly 45 per cent of the tobacco crop was exported. Prior to that time the proportion was apparently somewhat larger. The percentages which exports formed of the total production of the four principal export crops is shown in the accompanying table.

[1] The export year used in these figures is the twelve months following July 1 of the year in which the crop is harvested.

[2] Holmes, G. K., The Meat Situation in the United States: U. S. Dept. of Agr., Office of the Secretary, Rep. 109, pt. 1, p. 269, 1916.

PERCENTAGE OF FOUR PRINCIPAL CROPS EXPORTED, 1870–1900

Year	Cotton,[a] Per cent	Wheat,[b] Per cent	Corn,[b] Per cent	Tobacco,[b] Per cent
1870	72.6	22.3	1.0	
1871	66.2	16.9	3.6	
1872	67.7	20.8	3.7	
1873	69.3	32.5	3.9	
1874	71.0	23.7	3.5	
1875	70.6	25.6	3.9	
1876	68.9	19.7	5.7	
1877	71.1	25.3	6.5	
1878	69.3	35.8	6.3	
1879	68.5	36.3	5.5	45.7
1880	70.1	37.4	5.5	50.9
1881	65.7	31.8	3.7	49.7
1882	67.2	29.3	2.6	45.9
1883	67.6	26.5	3.0	45.9
1884	69.1	25.9	2.9	42.6
1885	66.0	26.5	3.4	52.0
1886	68.1	33.6	2.5	57.3
1887	65.6	26.2	1.7	68.0
1888	68.3	21.3	3.6	39.6
1889	66.0	25.2	5.2	52.4
1890	68.3	28.1	2.2	47.7
1891	66.0	38.6	3.7	45.9
1892	67.4	36.4	2.8	45.3
1893	71.4	38.4	3.9	46.8
1894	69.4	28.0	2.1	49.3
1895	66.6	22.2	4.4	48.3
1896	71.9	26.7	7.1	49.8
1897	71.1	35.6	9.9	43.1
1898	66.7	28.8	7.8	39.1
1899	65.8	29.3	8.7	39.7
1900	66.3	35.8	7.2	38.8

[a] Export year beginning September 1.
[b] Export year beginning July 1.

III. DESTINATION OF OUR AGRICULTURAL EXPORTS

In order to understand fully how European conditions affected American agriculture it is necessary to know not only what commodities and how much of these commodities we exported to Europe, but also which European countries were the chief buyers of our products and what were the amounts of their purchases. The amounts of these purchases vary greatly between countries, both as to total and as to distribution of this total among the various products.

The United Kingdom has been by far the most important market for our agricultural products. Of some products, notably fresh beef, bacon, ham, and cheese, practically the entire amount of our exports were to the United Kingdom. For all agricultural products exported during the period from 1895 to 1899 the percentage of the value of those which went to the United Kingdom was 53.4 as compared with 13.6 to Germany, 6.2 to France, 4.7 to Netherlands, 3.8 to Belgium, and a total of 88.2 per cent to all European countries.[1]

As with all of the other main agricultural exports, the United Kingdom took more cotton than any other country. As shown in figure 26 (p. 248), the total quantity of cotton exported increased quite steadily from 1870 to 1900, amounting in 1870, 1880, 1890, and 1900 respectively, to 959, 1,822, 2,472, and

[1] Hitchcock, F. H., Agricultural Exports of the United States, 1895–1899, U. S. Dept. Agr., Sec. Foreign Markets Bull. 20, p. 10, 1900.

3,126 millions of pounds. Exports to the United Kingdom also steadily increased from 649 million

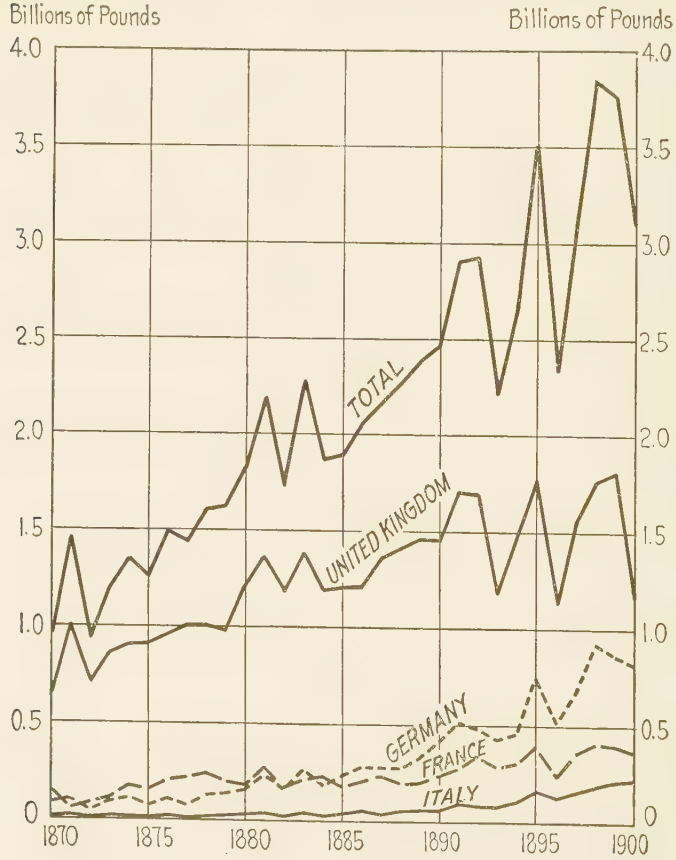

FIGURE 26.—EXPORTS OF DOMESTIC COTTON FROM THE UNITED STATES, 1870–1900.

pounds in 1870 to 1,470 million pounds in 1889, after which, excepting for year to year fluctuation

they remained fairly constant. Exports to Germany, France, and Italy, however, except for year to year fluctuations, continued to increase during the entire period. During the last five years of the century the exports to the United Kingdom were 45.8; to Germany, 23.7; to France, 11.4; and to Italy, 5.7 per cent of the total quantity of cotton exported.[1]

Prior to 1890, exports of the cottonseed products were of little importance, the value of cottonseed oil exported having only once been over 3 million dollars. Cottonseed oil cake and cottonseed meal are not consistently separated from other kinds of oil cake and oil cake meal prior to 1894 in the statistics of commerce and navigation, but the indications are that their export growth closely paralleled that of cottonseed oil. The greatest growth of cottonseed product exports occurred in the late nineties, cottonseed oil exports reaching 50 million gallons and cottonseed oil cake and oil cake meal one billion pounds in 1899.

In contrast to raw cotton, the United Kingdom was relatively a less important customer in these cottonseed products, France and the Netherlands taking a much larger amount of cottonseed oil and Germany a larger amount of the oil cake and oil cake meal. These exports, however, were of very much less importance to the cotton-growing industry than were the exports of raw cotton.

In dealing with exports of wheat and wheat flour

[1] Hitchcock, F. H., op. cit., 1896–1900, Bull. 25, p. 147.

over a long period of years it is advisable to reduce the two to a common denominator and add them in order to have a single figure which will represent the importance of the export trade to the wheat-growing industry. This has been done in preparing figure 27, which shows the destination of wheat and wheat flour exported from the United States.

In the case of wheat flour a substantial proportion of our exports went to non-European countries, as much as one-third of the total at times. The proportion of grain going to non-European countries was much smaller, resulting in the proportion of wheat and wheat flour taken by non-European countries being, for the most of the years, from 15 to 20 per cent of the total. In spite of these large amounts taken by non-European countries our exports to the United Kingdom composed more than half of our total exports and were more than twice as much as those to all continental Europe. Our official export figures indicate that France usually received the next largest amount, with Belgium and the Netherlands occasionally exceeding it. As a matter of fact, however, not a little of the wheat nominally exported to Belgium and the Netherlands was actually destined for consumption in Germany, whither it moved through Dutch or Belgian ports. For this reason exports to Germany, Belgium, and the Netherlands have been presented as a unit in figure 27. It may be added that our trade with these Continental countries was primarily wheat, flour being of decidedly minor importance.

One of the striking features of this trade is the

irregularity of the amount exported to continental Europe, particularly to France. The wide fluctuations are due primarily to the fact that these coun-

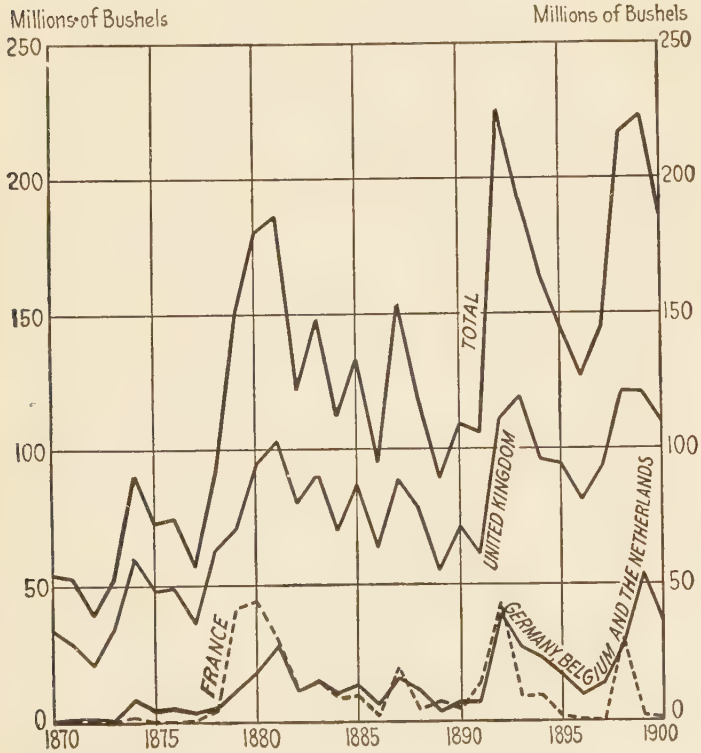

FIGURE 27.—EXPORTS OF DOMESTIC WHEAT AND FLOUR FROM THE UNITED STATES, 1870–1900.

tries raise most of their own wheat and import only what they need in addition. In poor crop years a large amount is imported and in good years very

little. Then too, the amount imported from the United States depends on the size of the particular year's crop here and in other surplus wheat producing regions. For example, the proportion exported from the crops of 1878, 1879, and 1880 averaged very high owing to the poor yields in Europe during that period and the high production in this country. From 1881 to 1890, however, our yields averaged considerably below the peak of 1879 and 1880, whereas Russian exports were very heavy in 1883 and 1885, phenomenal in 1888, and well maintained in the three years following. In addition, the competition of British India and Australia was quite vigorous throughout the eighties, particularly in 1883 and 1885. American wheat exports again had a banner year following the crop of 1891, which broke all previous records. The crop of 1892 was nearly as good, whereas England and France had a bad crop in 1891 and Russia in 1892. As this was followed, however, by heavy Russian crops until 1897 and large Australian and Indian imports until 1895, the percentage of our crop which was exported declined sharply to a point in 1895 which was the lowest reached except once since 1876.

As in the case of wheat flour, corn meal has been reduced to a grain equivalent in the figures and charts presented in this appendix, one barrel of corn meal being considered as the product of four bushels of corn. Exports of corn and meal fluctuated widely throughout the period and showed very marked growth, particularly in the seventies and in the late nineties. The United Kingdom took a larger part

of the total than any other country. In 1875 the United Kingdom took 78 per cent of our total exports and 94 per cent of that taken by Europe. Of the other countries Germany and France were next in importance. In later years the Continental countries increased in importance, but the United Kingdom continued dominant. It was not until 1897 that the total of our exports to all continental Europe was greater than our exports to the United Kingdom. At the close of the century the order of importance was: United Kingdom, Germany, Netherlands, Denmark, Canada, Belgium, and France.

The various meat and dairy products differed widely as to principal countries of destination. In some cases almost the entire amount of our exports went to one country and in other cases they were quite generally distributed to all European countries. Meat products showed a rapid and fairly steady growth throughout almost the entire period. Dairy exports, on the other hand, increased rapidly during the first decade of the period and then declined less rapidly to the end of the century.

Our beef products went primarily to the United Kingdom. In the case of fresh beef, as shown in figure 28 (p. 254), practically the entire amount was taken by the United Kingdom. For example, for the years 1896 to 1900, the United Kingdom received 99.5 per cent (by weight) of our fresh beef exports. Fresh beef did not bulk large in our export trade until after 1875, due to the lack of facilities for refrigeration. In 1879 we exported slightly over

50 million pounds. From that point on, particularly in the late eighties and late nineties the growth of exports was very rapid, reaching a figure of 329 million pounds in 1900. The United Kingdom was also our most important customer in the cured beef trade but took a much smaller proportion of our exports.

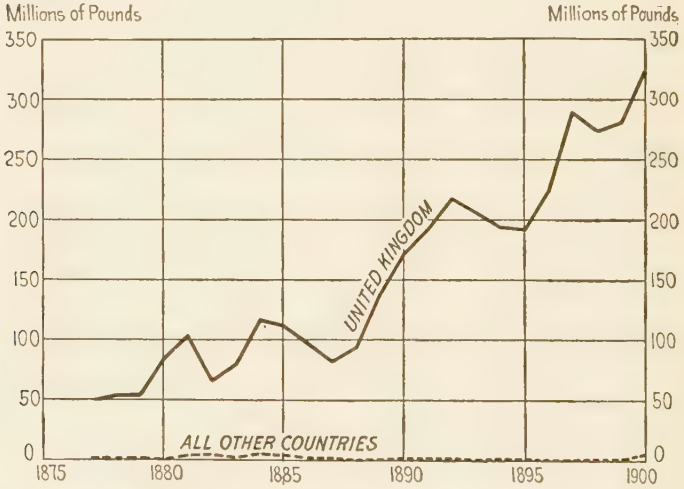

FIGURE 28.—EXPORTS OF DOMESTIC FRESH BEEF FROM THE UNITED STATES, 1870–1900.

The cured beef trade did not grow nearly as rapidly as that in fresh beef, exports in 1870 ranging around 30 million pounds and in 1900 being slightly less than 50 million pounds. The peak for cured beef was in 1890, when 98 million pounds were exported. Exports of cured beef to the United Kingdom did not show a very marked increase or decrease for the period as a whole. During the greater part of the

period they ranged from 20 to 35 million pounds, and in 1900 were less than 20 million. For the last decade of the century the United Kingdom received about 50 per cent of our cured beef exports. Germany received about 10 per cent of the total, and our exports to all the other countries of Europe were about the same as those to Germany.

Among pork products, bacon was the most important and here also the United Kingdom was our chief customer. The greatest growth of bacon exports occurred in the seventies, a peak of 760 million pounds being reached in 1880. As shown in figure 29 (p. 256), the United Kingdom continued to take a very large part of the total exports. Belgium was next in importance, receiving nearly 80 million pounds in certain years but seldom more than 40 million pounds. Germany was the only other European country of any particular importance, and during only about half the period were our exports to her more than 10 million pounds.

As in the case of bacon, the United Kingdom was our greatest buyer of ham, but the exports of the latter were not very large until a later period. The great growth of ham exports occurred in the nineties, and principally in the late nineties.

In contrast to bacon and ham, our exports of lard were very widely distributed among the European countries. Although here also the United Kingdom was more important than any other country for nearly the entire period, Germany was of almost as much importance and at times received more of our lard exports than did the United Kingdom. The

total to all other European countries was about the same amount as that exported to Germany or the United Kingdom. This, as well as the fairly steady growth in the total exports, is shown in figure 30. In 1870 our total exports of lard were only 36 million

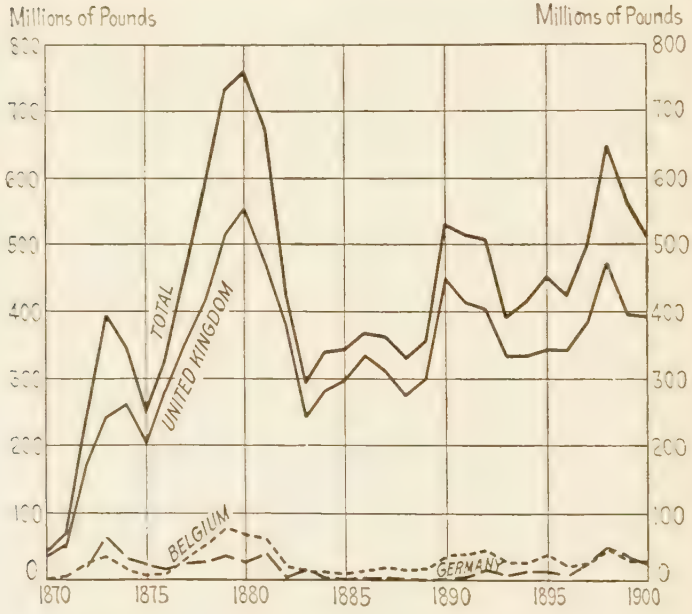

FIGURE 29.—EXPORTS OF DOMESTIC BACON FROM THE UNITED STATES, 1870–1900.

pounds, while in 1900 there were 662 million pounds, the peak of 711 million pounds having been reached in 1899.

Dairy products were not a very large item in our export trade, averaging less than 2.5 per cent of our total agricultural exports during the period from

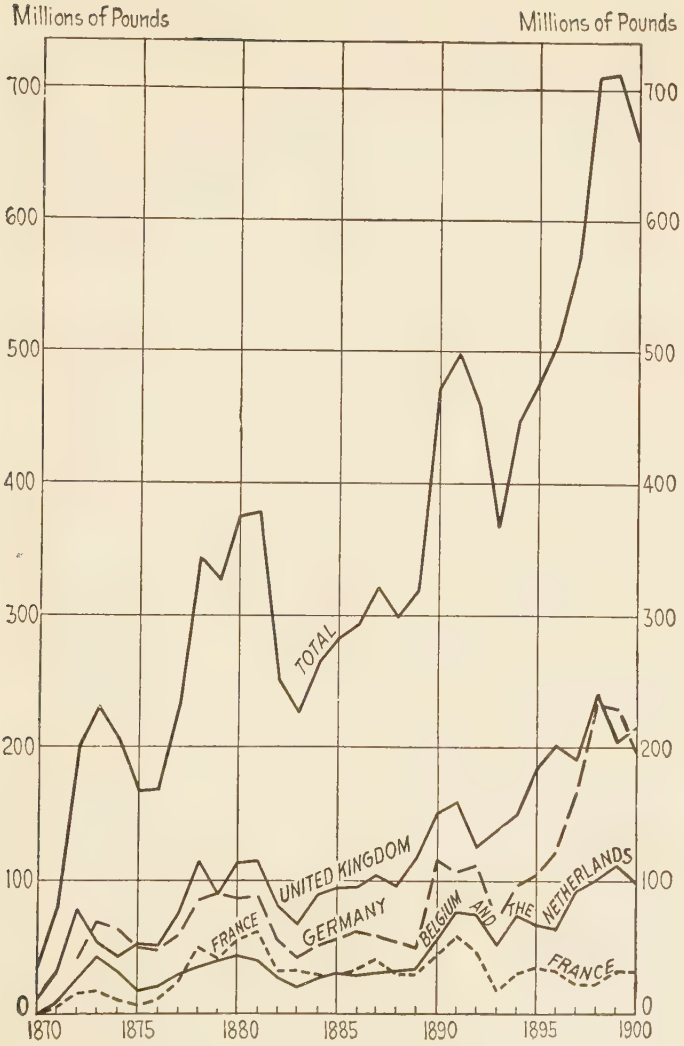

FIGURE 30.—EXPORTS OF DOMESTIC LARD FROM THE UNITED STATES, 1870–1900.

1870 to 1900. Of the dairy products exported, cheese was the most important, butter exports being a comparatively minor item during most of the years. Cheese exports grew rapidly from 57 million pounds in 1870 to a peak of 148 million pounds in 1881. From this they declined almost as rapidly until, by 1900 they amounted to only 48 million. Throughout the entire period the United Kingdom was the only customer of any great importance, taking about 80 per cent or more of the total. Butter exports followed a course nearly parallel to cheese, starting with 2 million pounds in 1870, reaching their peak of 39 million pounds in 1880, and dropping to 18 million pounds in 1900.

Tobacco exports, unlike the majority of the other agricultural products, were somewhat evenly divided among many European countries, there being no single country predominant throughout the entire period. Up to 1884 Germany received more tobacco than any other country, the United Kingdom being second and France third during the most of the time. After 1884, with the exception of the one year, 1889, the United Kingdom received more than any other country, growing steadily in importance. Germany held second place after 1884. Throughout the entire time France and Italy took about the same amount, the higher of the two in any particular year usually being the third country in importance. There was no very marked increase in the total amount of tobacco exported from 1870 to 1900. In 1870 the total exports of all unmanufactured tobacco, which includes leaf, stems and trimmings, were

186 million pounds. In 1874 they rose to 318 million, but dropped to 218 million in 1876. Exports continued to fluctuate in a similar manner throughout the period, being 263 million in 1898, 284 million in 1899, and 345 million in 1900. While there was definitely a growth during the period it was not rapid and the year-to-year fluctuations were very great.

IV. CAUSES OF OUR GROWTH IN EXPORTS

With these facts in mind concerning the extent and character of our growth in agricultural exports to Europe during the latter half of the nineteenth century we may now turn to a consideration of the reasons for this growing volume of export trade. Why were our goods in so great demand abroad? Upon what circumstances, European or other, was this demand dependent?

In Chapter I we have already alluded to the growing industrialization of northwestern Europe as being the chief force which explains the expanding market for American farm products. First in time and most extreme in the degree of her industrialization throughout the nineteenth century, Great Britain became by reason of this fact, and also by the meagerness of her agricultural resources, the outstanding customer for American farm products and hence the greatest single factor in our export growth. Even as early as the end of the eighteenth century England had become definitely an importer of wheat, and by 1815 an organized campaign against protective tariffs on breadstuffs was begun. This was

fathered by the leading manufacturers and actively supported by the laboring classes, the Anti-Corn Law League, organized in 1839, having cotton manufacturers as its principal supporters. The growing feeling that industrial development in England was unduly hampered by anything which tended to make them dependent on home supply was greatly strengthened by the bad harvests of 1844 and 1845. This was capped by the Irish famine of 1845 and 1846 and resulted in the repeal of the Corn Laws and the practically free entry of grain after 1849.

At this time, to be sure, the export markets to which England was looking for supplies of breadstuffs were to be found on the Continent. However, the more her growth and industrialization under this policy of free entrance of foodstuffs, the greater the ultimate demand which she was building up to be supplied later from non-European sources. In the nature of the case British dependence upon Continental sources of supply was bound to be short lived in view of the fact that during the latter decades of the nineteenth century the growth of population on the Continent was hardly less striking than that in the United Kingdom and her turn toward industrial development and the growth of cities hardly less marked. The growth of population in the chief European countries between 1860–1865 and 1910–1915 amounted to 58.6 per cent in Great Britain, 44.2 per cent in Germany, 63.9 per cent in Belgium, 84.3 per cent in Holland, 40.0 per cent in the Balkan States, and 91.5 per cent in Russia. France was the outstanding exception to this gen-

eral rule of rapid expansion in numbers, having risen barely 6 per cent in the half century. The marked extent to which this was a growth in city population is shown by the following table:

POPULATION OF 155 CITIES OF EUROPE, 1860–1865 to 1910–1915[1]

Country	Number of cities	1860–1865	1910–1915
Austria	1	587,000	1,800,000
Belgium	6	737,695	2,428,012
Denmark	2	166,152	572,248
France	38	4,275,543	7,428,989
Germany	39	2,748,558	10,941,141
Great Britain	23	6,200,644	11,407,084
Hungary	1	186,945	880,371
Italy	12	1,958,321	3,858,448
Netherlands	9	663,011	1,894,931
Rumania	1	124,734	345,628
Russia	13	1,672,024	7,294,293
Poland	1	162,805	909,491
Finland	1	61,530	170,500
Serbia	1	14,600	90,870
Sweden	4	185,566	767,773
Switzerland	3	146,055	446,522
Total	155	19,891,183	51,236,301

[1] These percentage figures and the table are both from Rossiter, W. L., The Adventure of Population Growth, Jour. Am. Statistical Assn., March, 1923.

The fact, furthermore, that population growth and city concentration were outrunning the development of European agriculture is also shown by a few figures covering the production of important foodstuffs during the same period:

EUROPEAN PRODUCTION AND NET IMPORTS OF CEREALS, 1886–1900
(000 omitted)

Yearly Average	Production					Net imports five cereals
	Wheat	Corn	Rye	Oats	Barley	
	Bushels	*Bushels*	*Bushels*	*Bushels*	*Bushels*	*Bushels*
1886–1890	1,422,906	440,312	1,349,283	1,903,140	727,246	211,549
1891–1895	1,512,913	478,366	1,374,699	2,032,836	823,369	319,136
1896–1900	1,563,391	513,913	1,470,532	2,195,422	817,673	523,102

NUMBERS OF CATTLE IN EUROPEAN COUNTRIES, 1870–1900*
(000 omitted)

Year[a]	Russia	Denmark	Germany	Italy	Holland	Belgium	France	Austria	Hungary	Roumania	United Kingdom
1870	21,409	1,239	15,777	3,489	1,411	1,242	12,733	7,425	5,279	.....	9,235
1880	23,845	1,470	15,787	4,783	1,470	1,383	11,446	8,584	5,311	2,376	9,871
1890	24,609	1,460	17,556	5,000	1,533	1,421	13,563	8,644	.....	2,520	10,790
1900	. . . .	1,745	18,940	5,672	1,656	1,646	14,521	9,511	6,511	2,589	11,455

* Provision Trade of the United States, U. S. Treasury Dept., pp. 2340–41, 1900; also Statistical Abstract for the Principal and Other Foreign Countries vol. 38, pp. 330–52, 1913.

[a] Figures are not always for the year specified, but for the nearest available year.

NUMBERS OF SWINE IN EUROPEAN COUNTRIES, 1870–1900*
(000 omitted)

Year[a]	Russia	Denmark	Germany	Italy	Holland	Belgium	France	Austria	Hungary	Roumania	United Kingdom
1870	9,051	442	7,124	1,554	329	632	5,890	2,551	4,443	.....	3,651
1880	9,208	527	9,206	2,064	335	646	5,566	2,722	4,160	886	2,863
1890	9,243	771	12,174	1,800	579	1,163	6,017	3,550	4,804	926	4,362
1900	....	1,168	16,807	2,224	747	1,015	6,740	4,683	7,330	1,709	3,664

* Provision Trade of the United States, U. S. Treasury Dept., pp. 2343, 1900; also Statistical Abstract for the Principal and Other Foreign Countries vol. 38, pp. 330–52, 1913.

[a] Figures are not always for the year specified, but for the nearest available year.

Not alone, however, was there a growth in population quite disproportionate to the expansion of agricultural production in Europe, but there was likewise a marked advance in the standard of living, particularly in countries which had only recently become industrialized. The taste for white bread, meat, and what formerly seemed table luxuries was a striking accompaniment of city living and the development of a larger purchasing power as a result of factory growth and the development of machine methods. The fact of more and better food, heavier consumption of drink, and better standards of dress and house furnishing are frequently mentioned by European writers of the period, but definite quantitative measures of such changes are difficult to secure. Some light, however, is thrown upon the matter by figures prepared by the U. S. Department of Agriculture [1] indicating that the per capita supply of wheat in Austria-Hungary (that is, home production plus imports) rose from an average of 3.84 bushels in 1886–90 to 4.42 bushels in 1901–05; from 6.04 to 8.40 in Belgium; from 2.59 to 3.40 in Germany; from 5.02 to 6.03 in Italy; from 1.91 to 3.29 in Denmark; and from 5.93 to 6.10 in the United Kingdom. At the same time rye consumption declined in Austria-Hungary, Bulgaria, France, and even in Russia to a slight extent. There were also substantial increases in barley consumption, due, it may be assumed, to more liberal consumption of beer.

While our discussion thus far has related entirely

[1] Cereal Production of Europe, Bureau of Statistics, Bull. 68, pp. 42–44.

to exports of foodstuffs, it should not be forgotten that the significance of the European market was by no means limited to these items of domestic consumption. The expanding need for raw material, which came from the growing cotton industry, early advanced cotton exports to a position of first importance in our export trade and they continued to make up as much as 29.7 per cent and 26.5 per cent of the total value of our agricultural exports, even in the years 1879 and 1899, respectively, in which cereal exports rose to the maximum of their importance.

The situation of this southern staple is somewhat different from that of the primarily western products which we have already discussed. Europe was not, in this case, changing from dependence on domestic production to dependence on foreign supply. Except for some regions of very limited producing capacity bordering the Mediterranean in Greece and Italy and a somewhat larger area in southern Russia, Europe had no land suitable for cotton raising. The growth of cotton imports, therefore, depended upon the growth of a new textile demand in proportion as cotton growth was cheapened, and as the aggressive cotton-mill interests of Europe exploited their domestic market or developed new markets in other countries. In this development, the enlarging purchasing power of European industrial populations was an important factor. A second factor was to be found in the development of commercial relations with India, China, South America, and the like,

where great quantities of low-priced cotton fabrics could be absorbed in proportion as Europe developed a market for the products which these countries were able to offer. Thus, the cotton producer in America profited from the commercial aggressiveness of European manufacturers and also from technical improvements in the process of manufacture, by which cost was reduced or quality improved.

While England was the great pioneer in the cotton-textile industry during the first half of the nineteenth century, development on the Continent was rapid during the later years. Few Germans wore cotton before 1850, the German cotton consumption being only about 15 thousand tons per year at that date. By 1870, the use of cotton had increased so that in the five-year period, 1866–1870, an average of 68 thousand tons annually were used, and from 1871 to 1875 this rose to 116 thousand tons per year.[1] Once under way, the development was rapid, so that by 1899 our direct exports of cotton to Germany amounted to 1.7 million bales as compared with 3.6 million bales to the United Kingdom. It is probably true also that of the cotton reported as sent to the United Kingdom some was reexported and that, on the other hand, Germany secured some additional cotton through Amsterdam or other ports of original entry. It is rather interesting to note, in conclusion, that the tremendous growth of the cotton industry in Europe, which was

[1] Clapham, J. H., Economic Development of France and Germany, 1815–1914, p. 295.

facilitated by the ample exports of cotton from this country, was a not inconsiderable factor in the growth there of great industrial centers which, in turn, constituted a market for our wheat and bacon and other food exports.

It is obvious, of course, that the growing consumption of our farm products in Europe depended not alone on the rising level of earnings among European consumers nor on the skill and the aggressiveness of European manufacturers and traders. It was aided also by the extremely moderate prices at which agricultural products were being offered in the export market of the United States and other surplus countries. This lower trend of food and textile prices may be traced in the table presented below.

It is a fact well known to any student of American agriculture that this scale of prices represented in many cases a highly unsatisfactory return to the American producer, and that production continued to come forward largely because of the stimulating effect of our free-land policy. Not alone, however, was the initial cost of agricultural produce being kept at a low level in the United States by this free-land influence and the rapid rate at which immigrants were crowding into the country. The cost of agricultural produce laid down in Europe was being kept to the lowest possible minimum also by virtue of the low and declining freight rates which were being offered by American railroads and by ocean-going vessels. We need not discuss here the relation which government subsidies to the railroads

FARM PRICES OF PRINCIPAL PRODUCTS, 1870–1900 *

Year	Wheat	Corn	Cotton	Cattle	Swine
	Per bu.	*Per bu.*	*Per lb.*	*Per head*	*Per head*
1870	$0.944	$0.494	$0.121	$20.78	$5.61
1871	1.145	0.434	0.179	18.12	4.01
1872	1.114	0.353	0.165	18.06	3.67
1873	1.069	0.442	0.141	17.55	3.98
1874	0.863	0.584	0.130	16.91	4.80
1875	0.895	0.367	0.111	17.00	6.00
1876	0.970	0.340	0.090	15.99	5.66
1877	1.057	0.348	0.105	16.72	4.85
1878	0.776	0.317	0.082	15.38	3.18
1879	1.108	0.375	0.103	16.10	4.28
1880	0.951	0.396	0.098	17.33	4.70
1881	1.192	0.636	0.100	19.89	5.97
1882	0.884	0.485	0.091	21.81	6.75
1883	0.911	0.424	0.091	23.52	5.57
1884	0.645	0.357	0.092	23.25	5.02
1885	0.771	0.328	0.084	21.17	4.26
1886	0.687	0.366	0.081	19.79	4.48
1887	0.681	0.444	0.085	17.79	4.98
1888	0.926	0.341	0.085	17.05	5.79
1889	0.698	0.283	0.083	15.21	4.72
1890	0.838	0.506	0.086	14.76	4.15
1891	0.839	0.406	0.072	15.16	4.60
1892	0.624	0.394	0.083	15.24	6.41
1893	0.538	0.365	0.070	14.66	5.98
1894	0.491	0.457	0.046	14.06	4.97
1895	0.509	0.253	0.076	15.86	4.35
1896	0.726	0.215	0.067	16.65	4.10
1897	0.808	0.263	0.067	20.92	4.39
1898	0.582	0.287	0.057	22.79	4.40
1899	0.584	0.303	0.070	24.97	5.00
1900	0.619	0.357	0.092	19.93	6.20

* As given in Yearbooks of U. S. Department of Agriculture for December 1, on crops and for January 1, following on cattle and swine.

had on this rate situation nor the propriety of the freight-rate structure which tended to cause the total burden to be relatively light on these classes of goods and perhaps disproportionately low on hauls of great distance. The fact is, however, that these low transportation charges did much to facilitate the growth of agricultural exports, particularly during the later seventies and the eighties.

Railroad freight rates at this time fluctuated more frequently and more sharply than they do now, much after the fashion of ocean freight rates. However, an idea of the general course of rail freights on farm produce can be gained from reports of the Commissioner of Agriculture published during these years. Thus, starting with a rate of 45 cents per hundred pounds on grain from Chicago to New York on January 1, 1876, the railroad freight tariff dropped to 20 cents on May 5th of that year, thence rising to 40 cents in October, 1877, whence it fell to 10 cents on May 1, 1879, averaged 35 cents in 1880, ranged from $12\frac{1}{2}$ to 40 cents in 1881, $12\frac{1}{2}$ to 30 cents in 1882, 15 to 25 cents in 1885.[1] A better bird's-eye view of the situation can be obtained from a monograph on the grain trade of the United States published by the Treasury Department in 1900. This report shows the following schedule of rates on wheat and wheat flour from 1881 to 1899, inclusive:

[1] Rept. U. S. Commissioner of Agriculture, 1885, p. 394.

AVERAGE FREIGHT RATES ON WHEAT AND WHEAT FLOUR, CHICAGO TO NEW YORK, 1881–1899

Year	Wheat, per bushel			Flour, per barrel by all rail
	By lake and canal	By lake and rail	By all rail	
	Cents	*Cents*	*Cents*	*Cents*
1881	8.19	10.4	14.4	51.12
1882	7.89	10.9	14.6	50.25
1883	8.37	11.5	16.5	53.95
1884	6.31	9.95	13.125	45.53
1885	5.87	9.02	14.0	42.93
1886	8.71	12.0	16.5	50.33
1887	8.51	12.0	15.74	52.47
1888	5.93	11.0	14.5	48.10
1889	6.89	8.7	15.0	50.00
1890	5.85	8.5	14.31	47.70
1891	5.96	8.53	15.0	50.00
1892	5.61	7.55	14.23	47.42
1893	6.33	8.44	14.7	48.85
1894	4.44	7.0	12.88	42.93
1895	4.11	6.95	12.17	39.70
1896	5.38	7.32	12.0	40.00
1897	4.35	7.37	12.32	41.07
1898	4.42	9.50	11.55	38.51
1899	5.05	6.29	11.13	37.43

The downward course of ocean freight rates likewise is shown by the following rates quoted by the U. S. Commissioner of Agriculture:

AVERAGE FREIGHT RATE ON WHEAT, NEW YORK TO LIVERPOOL, 1870–1888 *

(Cents per bushel)

1870	11.56	1880	11.76
1871	16.32	1881	8.16
1872	15.28	1882	7.74
1873	21.12	1883	9.08
1874	18.16	1884	6.80
1875	16.14	1885	7.20
1876	16.04	1886	6.92
1877	13.86	1887	5.42
1878	15.22	1888	5.34
1879	12.40		

* Ann. Rept. Comr. Agriculture, 1888, p. 451.

Concerning the situation of the American producer relative to the European market in view of our great natural resources and this favorable situation as to transportation costs, Mr. Edward Atkinson observed in 1884:[1]

Is it not apparent that wheat may go even below 34 shillings per quarter in Mark Lane before the supply of wheat from Dakota would cease to meet the demand, except the demand of our own country should stop the export tide? With our present railway and steamship service, even at paying or profitable rates of traffic, our farmers can unquestionably contest the markets of Europe with India and Russia, down to less than 34 shillings a quarter in Mark Lane, if they can not do better at home. . . . Thirty-four shillings per quarter will yield a little over $1.00 per bushel in London, at

[1] Atkinson, Edward, The Distribution of Products, p. 300.

which we can readily continue the traffic, but of course at a greatly reduced profit to the farmer.[1]

It was inevitable under such circumstances that the exact nature of the American competition in the world's food markets should early become a matter of concern to foreign governments as well as our own. British, Austrian, German, and other foreign students of the matter visited the United States in person or studied the available data as a means of gauging the probable capacity of the United States to supply farm produce to Europe over a longer or shorter future period. A number of these analyses were reviewed by the U. S. Commissioner of Agriculture in his annual report for 1883, which begins with the following interesting passage:

The diminished production of European agriculture during the past ten years and an increase of population in the same period have caused enlarged demands upon the surplus bread and meat products of other continents. The reduction of the home supply has resulted from unfavorable seasons rather than any extensive loss of area in cultivation. In Great Britain the discouragement of continued failure has somewhat circumscribed the wheat area. These losses have fallen mainly on the agriculture of Western Europe. While bad seasons were followed by worse in Europe, a series of exceptionally productive years was enjoyed in this country. A surplus of food products, always large, therefore became still larger, and a prominent share in the required supply was furnished by the United States. At the same time our railway

[1] As a matter of fact 1891 was the only year after 1885 and before 1898 in which the English price of wheat was maintained as nigh as $1.00 a bushel. In 1894 and 1895 it was little more than two-thirds of that figure.

transportation rates were wisely reduced to render possible this increased movement. The result was an unusual foreign export of wheat, corn, and meats, sold at lower rates than European farmers could afford to accept; when their operations became unprofitable, profits were absorbed, capital wasted, and in many cases bankruptcy followed. Rents declined and leases were given up.

German and French farmers, as well as British, have been for some years feeling the pressure of this competition. The city and country press of those countries has teemed with discussions of the situation, and writers on national and political economy have treated the subject at length in pamphlets and serials.

The commissioner quotes first from British official representatives who had made studies here in 1879 and 1881 but gives chief attention to views emanating from Central European sources. Among these, Max Wirth [1] estimated that America was able to produce grain at one-third less than the average cost in Europe, and believed that the wheat area would continue to expand because of transportation rates lower than those maintaining in Europe. These freights he thought might be expected to fall still farther. Mr. Karl Kautsky [2] also, writing on the competitive advantages of the American farmer—

canvasses the comparative costs of producing wheat in America and Europe, and concludes that in this country the cost is 5.65 francs per hectoliter, and in France 18.42 francs. He makes the cost per day for feed in fattening an ox 1.03 francs in France, and in Texas only seven-hundredths of a franc; for sheep, twelve-hundredths of a franc in France, and two-hundredths in Texas. With

[1] Krisis in der Landwirthschaft und Mittel zur Hülfe.

[2] Die überseeische Lebensmittel-Kunkurrenz.

this advantage the Texan farmer must grow wealthy while the French farmer is consuming his capital. Another advantage in America is political. While in Europe three million able-bodied men are taken from the plow and workshops into the military service, the land forces of the United States amount to only 27,500 men. While in Germany 1 per cent of the population do military duty, only one-hundredth of 1 per cent serve as soldiers in the United States. In the grain region the American farmer pays at the most 1 mark taxes per hectare, in many states (as in Texas) only 28 pfennigs per hectare; the Austrian farmer, on the other hand, at least 5 marks, and the French farmer 20 marks.[1]

How deeply our competition had penetrated into the heart of European agriculture is shown by an Austrian, Dr. Alexander Peez, who writes as follows:[2]

As early as 1873 small quantities of American wheat appeared in the markets and mills of northern Bohemia. At the same time considerable quantities of lard and bacon came to us, and so great was the effect of even their first appearance that, while in 1870 Austria-Hungary exported 165,000 meter zentners of these articles, in 1874 150,000 meter zentners were imported, the American products having gone so far as Pesth. Since then Austrian commercial history further records the fact that in 1879 American wheat was sold in the markets of Trieste and Fiume, the export ports of the Hungarian grain trade; and that in 1880 the pressed-yeast factories about Pilsen consumed about 30,000 meter zentners of American corn, while in Reichenberg American apples have become a staple market article.

It should be borne in mind, however, that the authors to whom we have just referred were writing

[1] Rept. U. S. Commissioner of Agriculture, 1883, p. 349.

[2] Die Amerikanische Concurrent.

at about 1880 or 1881, just when the competition of American cereals was at its height. The keenness of our competition was considerably lessened by better crop yields in Europe in the following years, coupled with a marked shortage in the United States in 1885 and a comparatively light crop in 1883. Writers of the late eighties [1] were inclined to look with some complacency on the progress made by Continental agriculture, due in part to the movement toward government assistance and to more scientific methods which developed out of the earlier agitation. These checks to American exports, however, proved to be rather temporary in character. The United States had very large cereal crops in 1889, 1891, and from 1895 to the end of the decade. Russia, on the other hand, had poor crops in 1891 and again in 1897, and furthermore was hampered by certain tariff wars in the early nineties. In the United States the heavy cereal production of the nineties was matched by several record-breaking cotton crops and a very high level of live-stock production, culminating in extraordinary exports in the closing years of the century, particularly 1898 and 1899.

It is perhaps not strange in view of historic developments during the latter half of the nineteenth century that there was a tendency in many quarters to regard the decline in exports during the eighties as having been a mere temporary recession and the increase which took place in the nineties as some-

[1] Cf. Sering, Max, Die landwirthschaftliche Konkurrenz Nordamerikas in Gegenwart und Zukunft, p. 534, ff. 1887.

thing which could be counted on to be permanent. For example, the monographs on the grain and provision trade of the United States published in the Summary of Commerce and Finance, January and February, 1900 (pp. 1995, 2309), speak as follows:

The influence of the foreign market upon the internal grain trade of the United States is becoming constantly greater. While domestic consumption is rapidly increasing it is not growing at as rapid a rate as the foreign demand. From 1867 to 1872 the United States exported annually 35,500,000 bushels of wheat; from 1873 to 1878, 73,400,000 bushels annually; from 1879 to 1883, 157,600,000 bushels annually. After this period there was a decrease in the quantity exported, the exports amounting to only 122,400,000 bushels from 1884 to 1888, and 144,400,000 bushels from 1889 to 1893; but during the last half decade (1894 to 1898) the export reached the annual total of 159,600,000 bushels of wheat. During these six periods the export of wheat was 15.53, 24.59, 34.91, 27.74, 28.86, and 34.96 per cent respectively, of the total production, the proportion for these half-decennial periods varying between less than a sixth to over a third of the total crop.

While the corn crop has always been considerably larger than the wheat crop the export of that article, has, until recently, assumed no such proportions as that of wheat. There are recent indications of a continued large increase in the export of corn. In 1898, for the first time, there were more bushels of corn exported than of wheat and flour combined (one barrel of flour being considered equivalent to $4\frac{1}{2}$ bushels of wheat). This relation between wheat and flour was not maintained during the fiscal year 1899, but the exportation, though lessened, was still considerable, falling but little below that of 1897, and amounting to 174,089,094 bushels of corn and 791,488 barrels of corn meal. The exportation was to the same

countries and in about the same proportion as in the case of wheat, with the exception that Germany receives a far larger percentage of our exported corn (19.9 per cent) than of our exported wheat (7.4 per cent) or of our wheat flour (0.3 per cent).

. . . In 1870 the exportation of provisions amounted to less than $31,000,000, from which it increased with remarkable rapidity to $156,800,000 in 1881. From 1881 on, however, the period of French and German exclusion of meat products set in, and the value of our exports declined rapidly until it reached $90,680,000 in 1886, from which figures it has gradually risen. It was not until 1898, however, that the high figures of 1881 were again attained. In 1898 our exportation of provisions amounted to $167,300,000, in 1899 to $175,500,000.

As a matter of fact it was the conditions of the late nineties which were temporary, and the period of our heavy agricultural exports was about to give way to one of rather marked and steady decline. Before passing on to discuss the details of that movement in Appendix B, it is well to note that from both the American and the European points of view the competition of other countries with the United States was far from being insignificant even during the later decades of the nineteenth century. Constant references are to be found to the relation of older exporting countries, Russia and India, and to certain newer entrants in the field, such as Argentina, Australia, and Canada. The discussion of the extent and nature of this competition, however, will be left to our survey of the period following 1900, in which it became a much more decisive factor in our trade relations.

APPENDIX B

AGRICULTURAL EXPORTS DURING THE PERIOD OF DECLINE, 1900–1914

In the latter part of Chapter I the general features of the decline of agricultural exports during the period from 1900 to 1914 were noted. It is the purpose of this appendix to present more detailed data of exports during this period, tracing the course of this decline and examining the reasons for it. As far as practicable, exports given in this appendix are for calendar years instead of being for fiscal years as were the data given in Appendix A. An exception is made in computing the per cent of crops exported. In these figures the year from July 1 to June 30 is taken for all products except cotton in order that the figures may represent as nearly as possible the exports of the crops grown in the given year. The figures showing relative importance of several agricultural exports (pp. 278–292) are also given for years ending June 30.

I. GENERAL CHARACTERISTICS OF THE EXPORT TRADE

In this period, as compared with the period 1870–1900, there were a number of important changes, not only in the relative value of the various products

exported but also in the general trend of increase or decrease of these values. In the case of cotton exports, which in the period from 1870 to 1900 had been decreasing in importance as compared with other classes of products, there was a decisive and a rapid growth. As shown in figure 31, cotton exports had comprised less than 30 per cent of the value of all agricultural exports in the year ending June 30, 1900, while in the year just preceding the outbreak of the war (year ending June 30, 1914) they comprised practically 55 per cent of the total value of our agricultural exports.

Grain products, which had maintained their relative importance throughout the period ending 1900, now showed a clearly marked tendency to decline. They decreased from more than 31 per cent of the total value of agricultural exports in 1900 to less than 15 per cent in 1914, having been even lower than this in 1911 and 1912. Packing-house products likewise declined in relative importance during this period, though not as rapidly as did grain products. In 1900 packing-house products ranked third among agricultural exports, comprising slightly over 21 per cent of the total. By 1914 their value was less than 14 per cent of the total, which put them again in third place, where they had been in the previous year also. This, however, was due chiefly to the marked increase in grain exports in these two years. In the nine years preceding 1913 the relative importance of packing-house products had exceeded that of grain exports in every year except one.

The relative standing of these groups is shown in

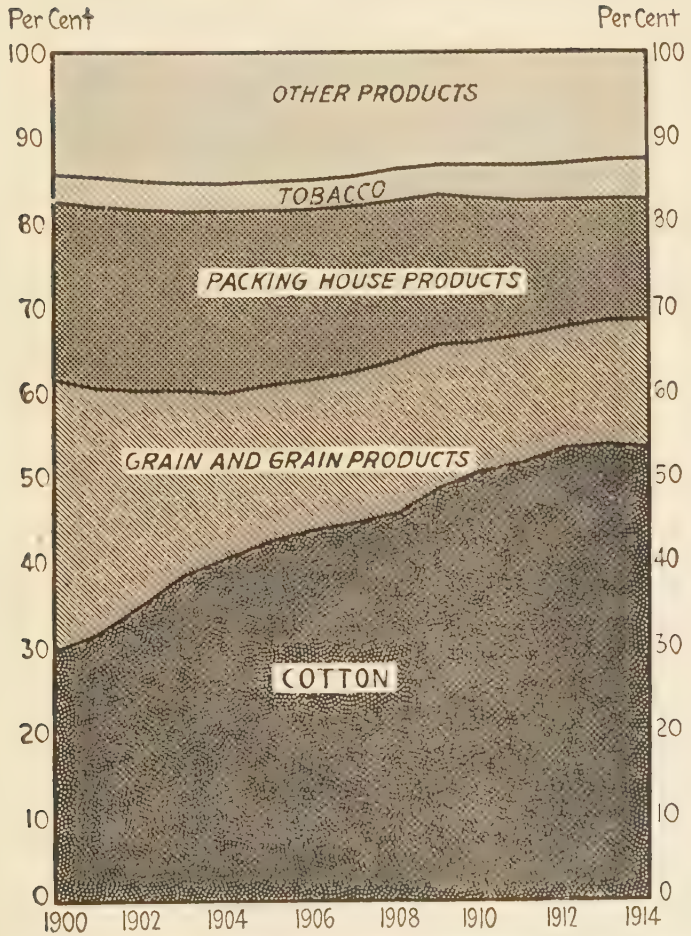

FIGURE 31.—RELATIVE IMPORTANCE OF PRINCIPAL CLASSES OF DOMESTIC AGRICULTURAL EXPORTS FROM THE UNITED STATES, 1900–1914.

figure 32, in which, for the sake of comparison, the whole period from 1870 down to 1914 is presented. The relative decline and subsequent recovery of cotton contrasts sharply in this chart with the pronounced rise of grain exports in the early years and their even greater falling off toward the close of the period. The course of packing-house products is similar though less extreme in its movement.

As shown in figures 31 and 32, tobacco, in contrast to the other classes of products, showed a slight but very steady increase in relative value, rising from 3.4 per cent to 4.8 per cent. The "other products" group, after a slight increase up to 1904, declined somewhat in importance throughout the remainder of the period.

Turning now to the individual products within these general groups, we note that the value of wheat and wheat flour exports, which were the main items in the grain and grain products class, showed a decrease similar to that of the entire cereal group. While beef and pork products both decreased, the decrease in beef products was the more rapid, falling from 6.3 per cent in 1900 to 1.3 per cent in 1914. Pork products on the other hand were 13.3 per cent of the total in 1900 and 10.2 per cent in 1914. Live animal exports, never a leading item, now almost disappeared, following a course quite similar to that of beef products. Dairy products continued the decline in significance on which they had started as early as 1877.

Of the individual pork products lard was the only one of importance which maintained its position,

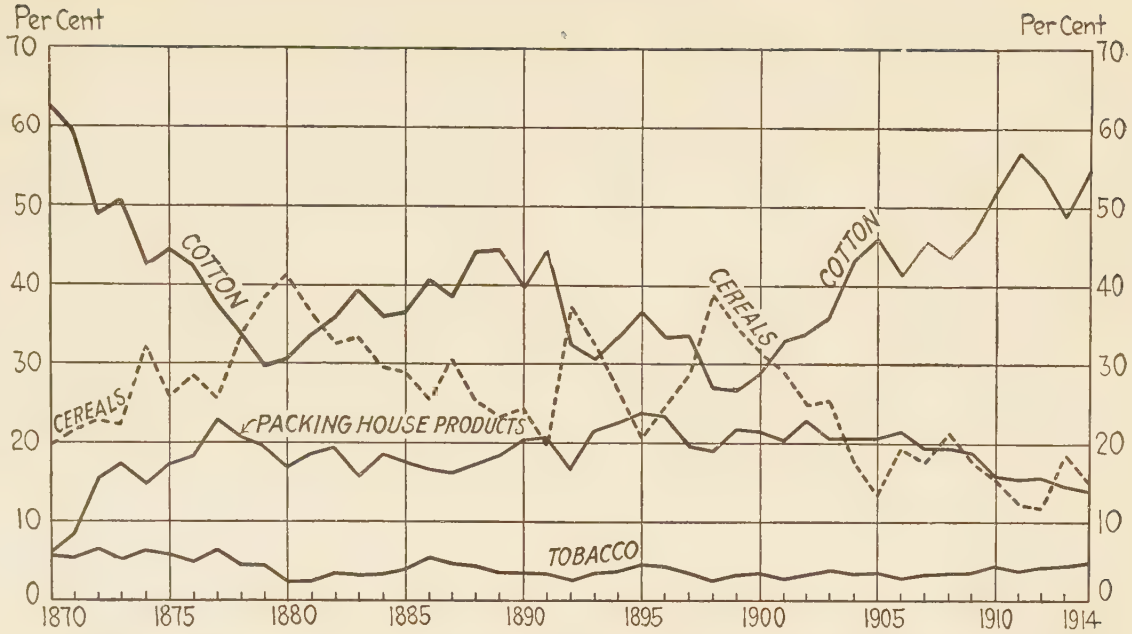

FIGURE 32.—PERCENTAGE RELATION OF SPECIFIED CLASSES TO TOTAL DOMESTIC AGRICULTURAL EXPORTS, 1870–1914.

whereas bacon and ham exports both declined in relative position, bacon from nearly 5 per cent to less than $2\frac{1}{2}$ per cent and hams only slightly. Fresh beef, which at the beginning of the period had been the largest item in the beef-products class, fell from $3\frac{1}{2}$ per cent to less than one-tenth of 1 per cent of the total value of agricultural exports.

These figures, it is to be noted, are relative; and since the total value of agricultural exports fell during the period, the exports of a product which merely maintained its relative importance from 1900 to 1914 would have decreased in absolute-value figures and one which decreased in relative position would show an even greater decrease in absolute value.

Passing to the question of the relative dependence of the various classes of farm products on the foreign market during this period, we find that cotton remained in the position of the greatest dependence, with tobacco, wheat, hogs, and cattle next in line. This was the same order as that maintained in the period from 1870 to 1900. There were, as is shown in the table on page 283, changes in the extent to which some of these products depended on the foreign market.

Cotton showed practically no change, the highest per cent exported being 71 per cent of the crop of 1901 and the lowest being 62 per cent in 1903. In the case of wheat, on the other hand, there was a marked decline. In the five-year period from 1896 to 1900, 31 per cent of the wheat crop was exported, while in the period from 1909 to 1913, only 15 per cent was exported. As in the previous period, the

per cent of the wheat crop exported varied widely from year to year, depending on the crop conditions in the various wheat-producing countries as well as the crops in this country. For example, only 7.4 per cent of the crop of 1904 was exported, as against 25.6 per cent of the crop of 1907.

PERCENTAGE OF FOUR PRINCIPAL CROPS EXPORTED, 1900–1913

Year	Cotton [a]	Wheat [b]	Corn [b]	Tobacco [b]
	Per cent	*Per cent*	*Per cent*	*Per cent*
1900	66.30	35.84	7.24	38.78
1901	71.01	29.74	1.74	36.76
1902	63.85	28.01	2.92	44.80
1903	62.05	18.17	2.49	38.23
1904	66.21	7.40	3.58	50.62
1905	64.56	13.44	4.37	49.32
1906	64.91	19.37	2.98	49.93
1907	68.39	25.56	2.19	47.39
1908	65.43	17.73	1.48	40.09
1909	62.93	12.47	1.48	33.85
1910	66.85	10.91	2.27	32.20
1911	68.19	12.83	1.65	41.97
1912	64.27	19.57	1.63	43.50
1913	62.56	19.07	0.44	47.16

[a] Export year beginning September1. [b] Export year beginning July 1.

The proportion of the corn crop exported decreased during the period from 7.2 per cent in 1900 to 0.4 per cent in 1913. The dependence of both beef and pork products decreased during the period, only 6 per cent of the total beef production of 1909 being exported as compared with 11 per cent of the pro-

duction of 1900. Pork exports in 1909 were 12 per cent of the production, while in 1900 they had been 20 per cent.[1] Thus the decreased corn exports, together with the decreased proportion of beef and hog products exported, resulted in the corn-growing industry being far less dependent than formerly on the foreign market.

Tobacco shows an increased dependence on the export market if we look merely at the beginning and end of the period, being 39 per cent of the crop of 1900 and 47 per cent of the crop of 1913. However, these particular years can not be regarded as typical. During the decade of the nineties an annual average of 45.5 per cent of the crop was exported as compared with an average of 43.6 per cent of the ten crops 1904–1913, inclusive.

II. DESTINATION OF THE PRINCIPAL AGRICULTURAL EXPORTS

After 1900, although Europe was still by far the principal destination for our agricultural exports, she took a smaller percentage of the total than formerly. A comparison of the proportion which went to Europe and to the principal European countries in the period 1910–1914 with the percentages which these countries took in the period 1895–1899 is shown in the accompanying table.[2]

[1] Holmes, G. K., The Meat Situation in the United States, U. S. Dept. of Agr., Office of the Secretary Rept. 109, pt. 1, p. 269.

[2] The percentages used for the period 1895–1899 are based on the Department of Agriculture classification of total agricultural exports, while those for the period 1910–1914 are of the Depart-

PERCENTAGES OF TOTAL AGRICULTURAL EXPORTS TAKEN BY EUROPEAN COUNTRIES

	1895–1899 [a]	1910–1914 [b]
	Per cent	*Per cent*
United Kingdom	53.4	37.47
Germany	13.6	20.34
France	6.2	8.11
Netherlands	4.7	4.68
Belgium	3.8	3.01
Other countries	6.5	10.29
Total Europe	88.2	83.90

[a] Hitchcock, F. H., Agricultural Exports of the United States, 1895–1899, U. S. Dept. of Agr., Section of Foreign Markets Bull. 20, p. 10.

[b] Strong, H. M., Distribution of Agricultural Exports from the United States, Trade Information Bull. 177, p. 9, 1924.

The United Kingdom continued to be the principal customer for our cotton, taking nearly half of the total export. As shown by figure 33 (p. 286), our exports to her increased during the period, though not as rapidly as did our total exports or as our exports to Germany. In 1900 the United Kingdom took 44 per cent of our total cotton exports as compared with 41 per cent in 1912 and 36 per cent in 1913. The proportion of exports to Germany, on the other hand, increased from less than 25 per cent in 1900 to 27 per cent in 1912 and 30 per cent in 1913. France was third in importance among our customers, our exports to her also increasing both in absolute number of bales and in percentage of the

ment of Commerce classification, the principal difference being in the omission of alcoholic liquors and beverages from the latter. Both are for fiscal years ending June 30.

total, although they did not increase as rapidly as did those to Germany. Of the other countries Italy, Spain, and Belgium were of some importance, ranking in the order named.

FIGURE 33.—EXPORTS OF DOMESTIC COTTON FROM THE UNITED STATES, 1900–1913.

The other principal commodity in which our total exports continued to increase in quantity after 1900 was tobacco, total exports being 305 million pounds in 1900 as compared with 411 million in 1912 and 444 million in 1913. The tobacco exports continued to go to a great variety of countries in considerable

amounts, but the United Kingdom became by far the most important customer, our exports to her increasing considerably throughout the period, while those to Germany decreased and those to France increased but slightly. From 1900 to 1911 Germany was second in importance and France third, but in 1912–1913 the position of these two countries was reversed. For the period as a whole Germany, Italy, and France all took about equal amounts, Germany usually being first, Italy second, and France third. Our exports to each of them were usually around 35 to 40 million pounds as compared with 100 to 150 million pounds to the United Kingdom. The Netherlands, Spain, and Belgium also were of considerable importance.

In contrast to cotton, our total exports of both cottonseed oil and cottonseed oil cake and meal declined. Our exports of these products to the United Kingdom were of secondary importance, Netherlands and France taking more cottonseed oil and Germany and Denmark taking more of the cake and meal than did the United Kingdom. These products, however, were of far less importance than cotton. Unlike cottonseed oil cake and meal, flaxseed oil cake and meal exports increased from 443 million in 1900 to 705 million in 1912 and 870 million pounds in 1913. Belgium and the Netherlands were the chief takers, our exports to each increasing from roughly 150 million to 380 million pounds. The United Kingdom was third in importance but declined fairly steadily from about 100 million pounds in 1900 to 55 million in 1913. Germany likewise

declined, but our exports to her had never been large, exceeding 25 million pounds only three times during the period.

All of our principal food-product exports substantially declined after 1900. In order to understand fully the reasons for these declines we must first of all know not only to which of the European countries most of our exports went but also how the decline in exports was distributed among these countries. In general, the United Kingdom was the principal destination of our important food products, and it was also primarily our exports to the United Kingdom which suffered declines.

The total wheat and wheat flour exports of the United States dropped from 183 million bushels in 1900 to 155 million bushels in 1913. And as shown by figure 34 the exports of 1900 are low and those of 1913 high as compared to the general trend of exports during the period. The greater part of this decrease in total exports consisted of a decline of our exports to the United Kingdom. For the first five years in the period beginning with 1900, wheat exports to the United Kingdom were 53 per cent of the total, and for the five years 1909–1913 were 39 per cent of the total. In the case of wheat flour, exports to the United Kingdom were 51 per cent of the total from 1900 to 1904 and 27 per cent of the total for the period 1909 to 1913. Exports to other countries, although they fluctuated considerably from year to year, showed no very definite trend of either increase or decrease. Netherlands and Germany were next in rank to the United Kingdom,

both being of about equal importance. To France and Italy we also shipped considerable quantities of wheat, but as in the Netherlands and Germany there was no very definite increase or decrease.

Exports of corn from the United States to the United Kingdom were more than those to any other

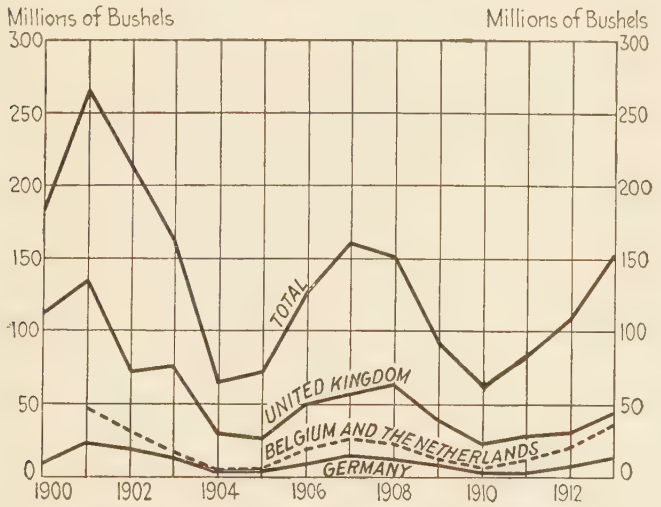

FIGURE 34.—EXPORTS OF DOMESTIC WHEAT AND FLOUR FROM THE UNITED STATES, 1900–1913.

country, being 43 per cent of the total in 1900 as compared with 20 per cent to Germany, which was second in importance. To the Netherlands also we shipped considerable quantities of corn, indeed after 1907 almost as much as to Germany. Exports to France, while being quite large in 1900, had practically ceased by 1908. The decrease in our total corn exports was shared by all the principal coun-

tries, exports to the United Kingdom falling from 82 million bushels in 1900 to less than 15 million in 1913; those to Germany from nearly 40 million bushels in 1900 to 6 million in 1913. While exports to the Netherlands did not decrease to such a great extent as those to the United Kingdom and Germany, the decline was substantial.

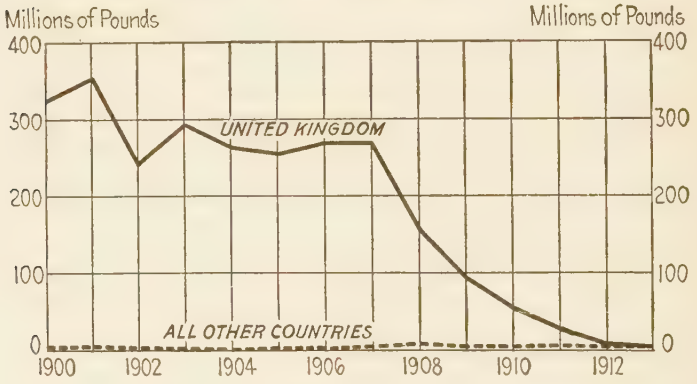

FIGURE 35.—EXPORTS OF DOMESTIC FRESH BEEF FROM THE UNITED STATES, 1900–1913.

Since the United Kingdom was practically our only customer for fresh beef the decrease in total exports of fresh beef was accounted for almost entirely by the decline of this British trade. As shown in figure 35, total fresh beef exports dropped from 326 million pounds in 1900 to 7 million in 1913. Cured beef exports continued the decline started in the early nineties, reflecting the general decline of the cured beef trade of the world rather than a displacement of our exports by the exports from other

beef-surplus countries. In 1900 we exported a total of 56 million pounds, of which 21 million were to the United Kingdom and 7 million to Germany. In 1913 we exported only 25 million pounds, 5 million going to the United Kingdom and nearly 3 million to Germany.

Our other principal beef-product export was oleo oil, of which we exported 160 million pounds in 1900. Of this about half went to the Netherlands, one-fifth to Germany, one-tenth to Norway and Sweden, and one-twentieth to the United Kingdom. Although the amount exported varied considerably from year to year, the general trend of the total exports was sharply upward during the early years of the period, the largest amount exported in any one year being 204 million pounds in 1907. From then on there was an even more rapid decline, exports in 1913 being only 101 million pounds. The exports to the Netherlands participated in the general increase until 1906, after which they declined rapidly, being the principal factor in the decline of the total. Exports to Germany on the other hand continued fairly constant with a slight upward tendency until 1908, after which they decreased rapidly from 40 million to 16 million pounds. Exports to the United Kingdom also increased until 1908, and after that declined even more rapidly than did the exports to Germany.

In the case of bacon exports, which were 470 million pounds in 1900, the United Kingdom was the only country to which we exported a large amount, Germany, France, Belgium, and the Netherlands

being of distinctly minor importance. As shown by figure 36 total exports and exports to the United Kingdom declined together, whereas exports to all other countries declined only slightly. As compared with bacon there was little decrease in our exports of cured ham and shoulders, but, as in the case of bacon, the United Kingdom was our principal

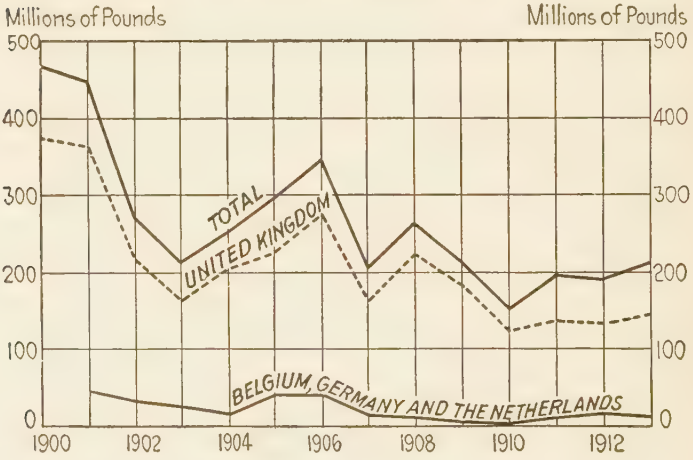

FIGURE 36.—EXPORTS OF DOMESTIC BACON FROM THE UNITED STATES, 1900–1913.

customer and our declining exports to the United Kingdom accounted for practically all of the decline in total exports.

Exports to the United Kingdom and Germany composed by far the greater part of our lard exports, those to the United Kingdom being but little greater than those to Germany. Indeed in one year (1905) exports to Germany were very slightly in excess of

those to the United Kingdom, as shown by figure 37. The Netherlands and Belgium also took considerable quantities of lard, and we shipped smaller amounts to nearly all the western European coun-

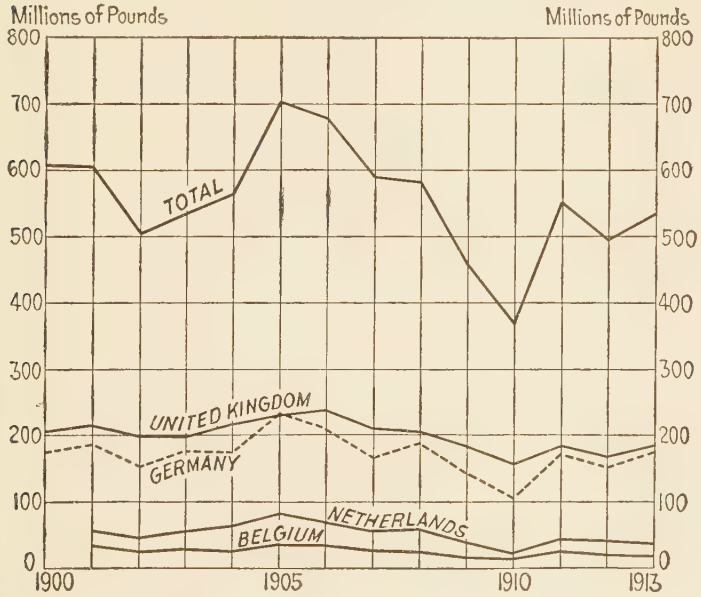

FIGURE 37.—EXPORTS OF DOMESTIC LARD FROM THE UNITED STATES, 1900–1913.

tries. The decline in our total lard exports was rather slow and irregular. Exports to no one country were primarily responsible for this decline, our exports to nearly all the countries declining almost proportionately.

III. DWINDLING SURPLUS AND RISING PRICES IN THE UNITED STATES

If we would find the reasons for the decrease of our food exports to Europe we must examine the conditions which made, or failed to make, the United States a satisfactory place for Europe to buy her agricultural products. In this there are two primary things to consider: (1) The quantity of goods which America could spare as an export surplus, and (2) the price at which these goods could be obtained here as compared with other sources of supply.

Europe would buy from us only in so far as she could obtain here the products which she desired on terms at least as satisfactory as could be secured elsewhere.

As to the first of these considerations, our domestic consumption had been increasing rapidly and continued to do so throughout the period under discussion. This growth of domestic consumption was in fact more rapid than the growth in our production in most of the various classes of agricultural products, owing to the country's growth in population and its increasing industrial development. The population of continental United States was 63 million in 1890, 76 million in 1900, and 92 million in 1910. The estimated population in 1914 was 98 million, an increase of 56 per cent over that of 1890 and 29 per cent over that of 1900. The census reports for the five principal cereals show an increase in production of barely 1 per cent from 1900 to 1910, against a 21 per cent gain in population. The year 1914 was a rather better crop year, but the report of the Bureau

of Crop Estimates for that year shows only a 10.7 per cent increase over the census figures for 1910, as against a 29 per cent increase of population. Along with these declines in per capita production of cereals, there were also the following declines in live stock:

NUMBERS OF LIVE STOCK PER CAPITA IN THE UNITED STATES, 1900–1914 *

	Cattle	Swine	Sheep
1900 (Census, June 1)	0.89	0.83	0.81
1905 (Est., Dept. Agr., Jan. 1)	0.73	0.56	0.54
1910 (Census, April 15)	0.67	0.63	0.57
1914 (Est., Dept. Agr., Jan. 1)	0.57	0.60	0.50

* Meat Situation in the United States, U. S. Dept. of Agr. Rept. 109, p. 215, 1916.

These per capita declines in agricultural production were of course not due to an absolute falling off in our agriculture but to a greater relative increase of city and industrial populations. Between 1900 and 1910 the number of persons gainfully employed in agriculture rose from 10,248,935 to 12,417,276 but those gainfully employed outside of agriculture rose from 29,073,233 to 38,167,336. As a result, the percentage which those in agriculture bore to the total of those gainfully employed dropped from 35.3 per cent in 1900 to 32.5 per cent in 1910. With this relative increase in manufacturing and other non-farming occupations and with the growing urbanization of many parts of the country, there was a more intensive domestic demand for our agricultural products, particularly meats, cereals, and other foodstuffs.

This situation resulted in a clearly marked rise of most agricultural prices as compared with the general price level. An examination of the all-commodity index and the farm-products index as reported by the Bureau of Labor Statistics brings this clearly to light. The figures are presented in the table below.

INDEX OF GENERAL PRICES AND OF AGRICULTURAL PRICES IN THE UNITED STATES, 1896–1914 *

(1900 = 100)

	All commodities	Farm products
1896	82.5	78.3
1897	83.8	84.0
1898	86.3	88.4
1899	92.5	89.8
1900	100.0	100.0
1901	98.8	105.8
1902	106.3	117.4
1903	106.3	108.7
1904	107.5	115.9
1905	106.3	111.6
1906	110.0	113.0
1907	117.5	123.2
1908	113.8	123.2
1909	121.3	140.6
1910	123.8	149.3
1911	118.8	134.8
1912	126.3	146.4
1913	125.0	144.9
1914	125.0	149.3

* Bureau of Labor Statistics, compiled from figures of the Department of Labor.

However, the European importer is interested primarily not in the ratio at which products that he buys exchange for other products in the exporting country, but rather in the ratio of these prices to prices of other commodities in his own country and of the same commodities in other lands from which these imports might be drawn. Since general prices

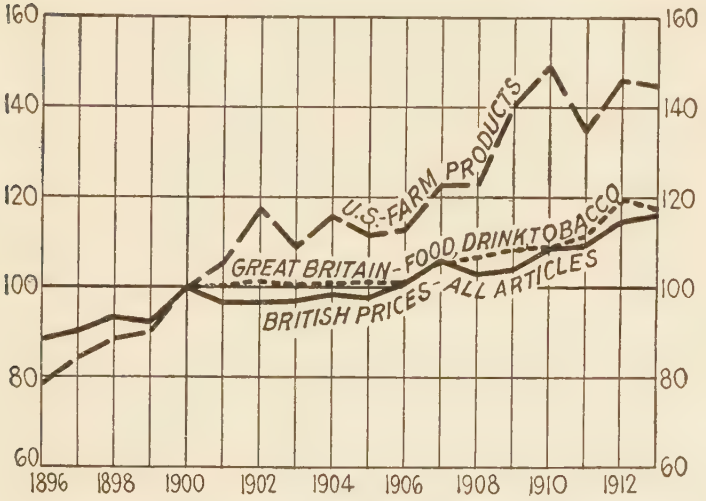

FIGURE 38.—PRICE INDEXES IN THE UNITED STATES AND GREAT BRITAIN, 1896–1913.

were rising faster in the United States than in Great Britain and since agricultural prices here were rising yet faster than the general price level, we were becoming a distinctly less attractive market for European importers to buy in. These trends are shown in figure 38. It is not altogether easy to obtain statistics which will reflect this situation clearly and

fairly. Nevertheless, some light will be thrown on conditions in England, our chief customer, by a comparison of the trend of general prices and of the index of prices of food and drink in the United Kingdom and of farm-product prices in the United States.

Since 1900 marks roughly the turning point at which our agricultural exports began to decline,

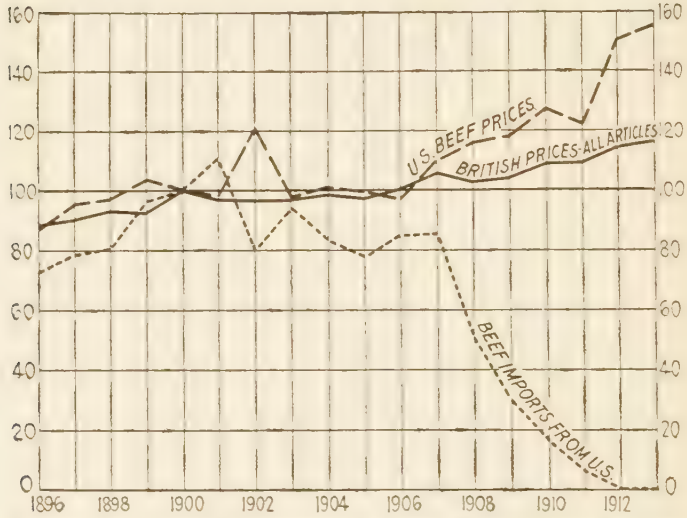

FIGURE 39.—INDEX NUMBERS OF FRESH BEEF PRICES IN THE UNITED STATES AND IMPORTS OF AMERICAN FRESH BEEF INTO THE UNITED KINGDOM (1900=100).

that year is used as a base. It is to be observed that prior to 1900, when our total agricultural exports were at their height, the index of farm-product prices in the United States was even lower than the index of the general price level in the United Kingdom.

The prices of the principal products which were exported to the United Kingdom rose more rapidly than did the general price level in Great Britain. With this more rapid rise there was nearly always a decline in the amount which the United Kingdom imported from us. Fresh beef prices, for example, did

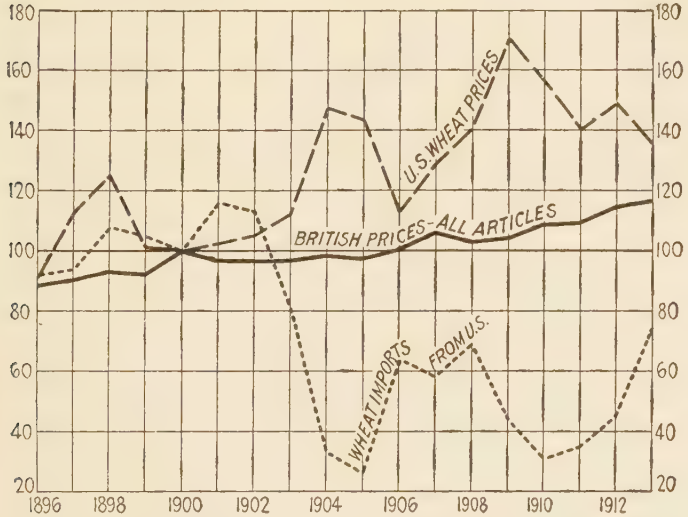

FIGURE 40.—INDEX NUMBERS OF WHEAT PRICES IN THE UNITED STATES AND IMPORTS OF AMERICAN WHEAT AND FLOUR INTO THE UNITED KINGDOM (1900 = 100).

not rise much faster than the general price level in the United Kingdom until 1907, and (fig. 39, p. 298), it was from 1907 on that the precipitous decline in the United Kingdom's imports of fresh beef from us took place. Likewise, wheat, bacon, and ham imports of the United Kingdom from the United States declined as prices in the United States rose.

This is graphically presented in figures 40 (p. 299) and 41.

While, under these conditions of rising prices, it is natural to expect smaller purchases by European countries from us, these reduced purchases would necessitate either a reduction of their consumption,

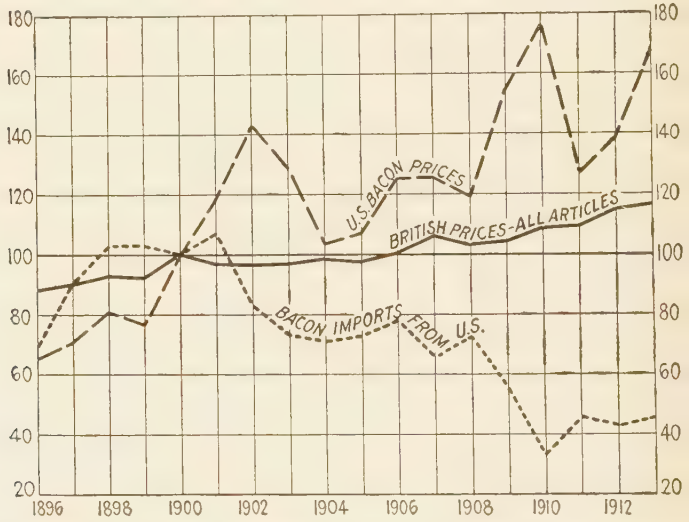

FIGURE 41.—INDEX NUMBERS OF BACON PRICES IN THE UNITED STATES AND IMPORTS OF AMERICAN BACON INTO THE UNITED KINGDOM (1900 = 100).

an increase in their production, or increased purchases by them from some other source. As already shown in Chapter I, Europe, particularly continental Europe, did increase her own production, but with the growing population it was impossible to decrease the consumption of food products as a whole. Instead, there must needs be provision for

increased consumption. In other words, it was necessary, on the whole, for Europe to maintain her food imports and in some instances even to increase them. This was particularly true of the United Kingdom, as she had little opportunity to increase her domestic production of food.

With a sustained and even growing need of food imports, Europe would have had to continue her dependence on the United States had not some relatively cheaper source of supply developed. Under such conditions her industrial growth and prosperity would quite conceivably have been checked by the rising cost of living. As it was, however, Europe was able to turn to cheaper sources rather than to bid up prices still further in the United States, with whatever effect such a process might have involved for American agriculture and industry on the one hand and European industrialism on the other.

What incentive there was to cause Europe to turn to new markets will appear from an examination of the prices in the various competing countries of surplus agricultural production. This shows that, on the whole, prices of the principal farm products did not rise as rapidly as they did in the United States. Satisfactory price indices for most of these countries producing agricultural surpluses are not available, but in the case of Australia we can readily make a comparison. In figure 42 (p. 302) the price trends of all agricultural products in Australia and the United States are compared. While, owing to various unsettled conditions, the Australian price

indices fluctuated very widely, it is evident that they did not rise nearly as rapidly as did the prices of farm products in the United States.

Not all commodities, however, could be obtained in large quantities from countries other than the United States. This was particularly true in regard to cotton and lard. Although Egypt was a con-

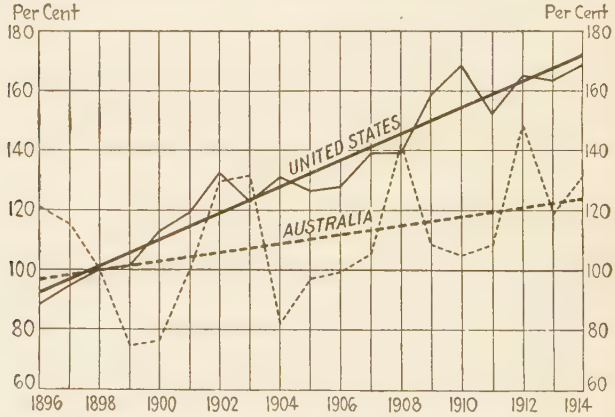

FIGURE 42.—PRICE TRENDS OF FARM PRODUCTS IN THE UNITED STATES AND AUSTRALIA, 1896–1913. (Computed from wholesale Price Indexes, 1898 = 100.)

siderable and growing source of cotton supply for the United Kingdom, she supplied only a small part of the demand and this for the finer grades of long-staple cotton. British India also was a source of some cotton of the medium and low grades, but it was necessary for the United Kingdom and other European countries to rely on the United States for much the larger part of their cotton in spite of advancing prices. Cotton prices in the United

States, however, did not advance as rapidly as did farm products on a whole.

Lard prices, on the other hand, advanced rapidly. However, in the absence of other important sources of supply, the United Kingdom continued to buy nearly as large quantities from the United States, and the decline in German imports, though more marked, was not extreme.

IV. EUROPE'S OTHER SOURCES OF SUPPLY

Mention has been made in Appendix A of the fact that in the period from 1870 to 1900, although most of Europe's imports of agricultural products had come from the United States, she also imported large amounts of some products from other countries. While many of these countries had agricultural export surpluses which could not be expected to increase or which were declining, there were some whose export surpluses were capable of marked expansion. A development of these would mean that the United States would lose her dominance as a source of agricultural imports of Europe.

In the case of cotton, British imports were about 80 per cent drawn from American sources throughout the period. While imports from Egypt showed a steady but very slow increase, the course of imports from India was distinctly downward from 1872 to 1893 and thereafter was quite steady at a low level. The situation in the other European importing countries was substantially the same.

In the case of wheat, on the other hand, Europe

produced a large proportion of her needed supplies. Eastern European countries indeed exported wheat to the middle and western parts of Europe, the demand for wheat imports being largely confined to the United Kingdom, Germany, Belgium, France, the Netherlands, Denmark, Italy, and Spain. In

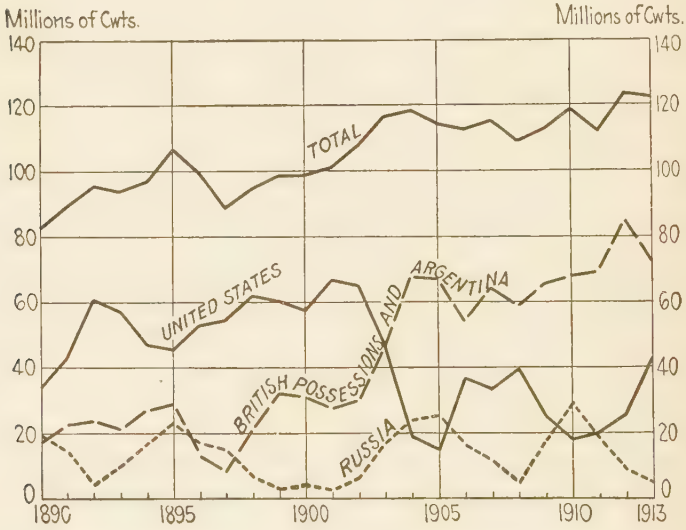

FIGURE 43.—IMPORTS OF WHEAT AND FLOUR INTO THE UNITED KINGDOM, 1890–1913.

the nineties and continuing through 1903 the United States was by all odds the largest source of wheat and wheat flour imports into the United Kingdom. As shown by figure 43, in 1904 Russia became a larger source and in 1905 more wheat and flour were imported from both Russia and Argentina than from

the United States.[1] In the years from 1906 to 1909 the United States was again the largest source but had lost her predominance in the British market, being superseded again by Russia in 1910 and by Canada in 1910 and 1912.

France was not a large importer of wheat and imported almost no wheat flour. During most of the period from 1900 to 1913 her greatest source was Algeria, although in the period from 1911 to 1913 she imported considerable amounts from Australia and Argentina. Throughout the entire period the United States was relatively a minor source.

By far the largest proportion of our corn exports had been to the United Kingdom, and in 1900, indeed the United Kingdom's principal source of corn imports was the United States. After 1900, however, England's imports from the United States decreased precipitously and those from Argentina rose nearly as fast, imports from Argentina becoming greater than those from the United States in 1902 and continuing so throughout the remainder of the period with the exception of the year 1911. In 1912 the United Kingdom obtained 65 per cent of her total imports from Argentina, as compared with 10 per cent from the United States. In 1913 imports from these two sources were 79 and 14 per cent respectively.

Germany was able to reduce her imports of both wheat and corn from the United States, in part by augmenting the domestic production and in part

[1] The figures used here are the total of grain and flour in equivalent weight of grain.

by expanding her imports from other sources. This is shown in figure 44, which shows also that in the period 1910–1913 her total supply of these two grains increased over that of the period 1891–1901, keeping pace with the increase in population.

Of all the European countries the United Kingdom has been by far the leading importer of beef, taking nearly all of our fresh beef exports. British imports of beef were largely of fresh beef and of comparatively small amounts of preserved beef.[1] In the beef trade Australasia had appeared as a

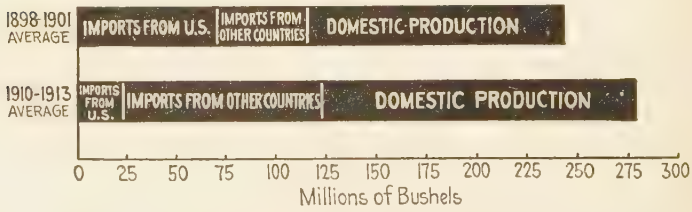

FIGURE 44.—SOURCES OF GERMANY'S WHEAT AND CORN SUPPLY, 1898–1901 AND 1910–1913.

source of British imports as early as 1890 and increased rapidly during the following decade, reaching 708 thousand hundredweight out of a total of 4,128 thousand hundredweight in 1900. Imports from Argentina had also begun in 1883, but these had amounted to less than 500 thousand hundredweight in 1900. After 1900, however, as shown by figure 45 the United Kingdom's imports from Argentina increased very rapidly and those from Australia

[1] This is using the term fresh beef in the American sense, including chilled and frozen beef.

fell off, though less rapidly until 1905. In 1901 the imports from the United States had reached their peak of somewhat over 3 million hundredweight and from that point declined until in 1907 they were slightly below 2.5 million hundredweight.

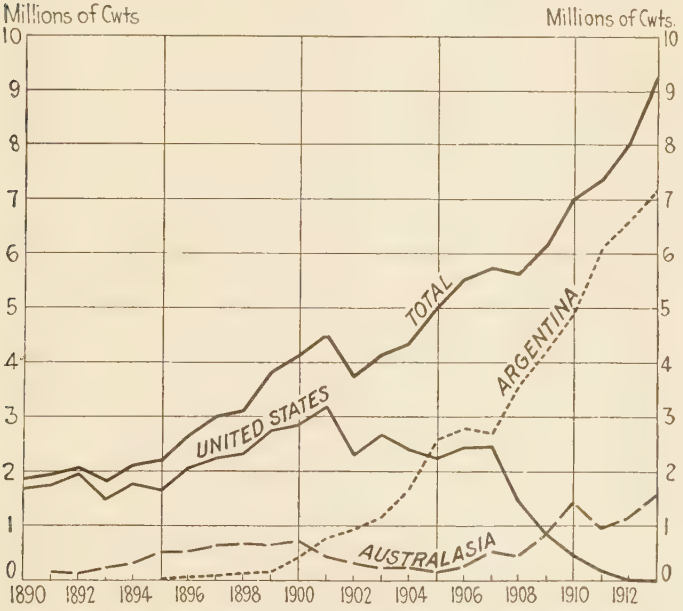

FIGURE 45.—IMPORTS OF FRESH BEEF INTO THE UNITED KINGDOM, 1890–1913.

After this they declined very sharply and by 1912 had almost entirely disappeared from the market, imports from Argentina and Australia meanwhile having increased rapidly.

As has been previously shown, very nearly the entire amount of our bacon exports went to the

United Kingdom but constituted by no means all of the United Kingdom's bacon imports from the United States, Denmark and Canada both being important rivals. These had become of considerable importance in the late eighties, and in 1900, out of a total import of 5.6 million hundredweight, 70 per cent was from the United States, 19 per cent from Denmark, and 9 per cent from Canada. The peak of the imports from the United States was reached in 1901, when slightly over 4 million hundredweight were imported from this source. After this, imports from the United States declined rapidly as shown in figure 46, while those from Denmark continued to rise throughout the remainder of the period and those from Canada until 1906. In the year 1913 the United Kingdom's total imports were 4.8 million hundredweight, of which only 37 per cent was from the United States while 48 per cent was from Denmark and 5 per cent from Canada. One of the important factors contributing to this displacement of American bacon by the Danish product was a difference in quality, the Danish product being from the lean bacon type of hog in contrast to our bacon, which was from the lard type.

There was practically no displacement of our ham exports by other countries, since nearly all of our exports were to the United Kingdom, which continued to obtain practically her entire ham supply from the United States. Her total imports fell from 1,803 thousand hundredweight in 1900 to 855 thousand in 1913, imports from the United States falling in the same period from 1,602 thousand

to 761 thousand hundredweight. Likewise in the case of lard European countries did not turn to other sources to any considerable extent, there being no country other than the United States which produced an export surplus of any importance.

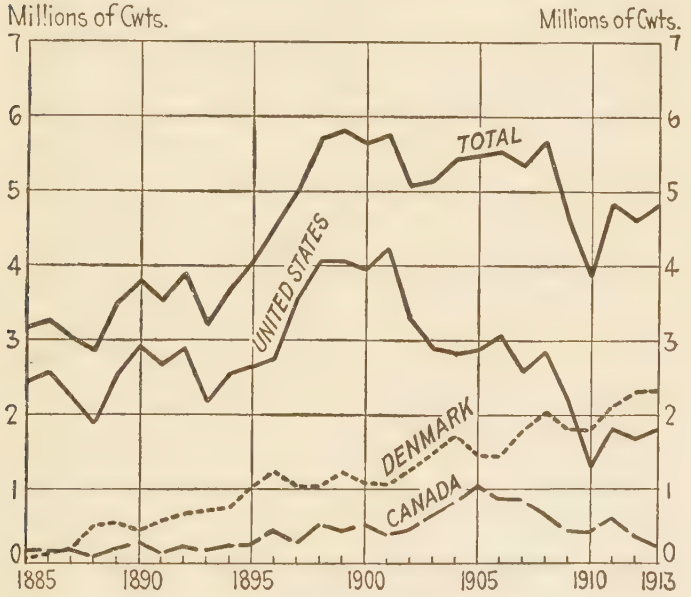

FIGURE 46.—IMPORTS OF BACON INTO THE UNITED KINGDOM, 1885–1913.

There were many sources of tobacco imports other than the United States, but none of these were nearly as important as was the United States. Among the most important were the Dutch East Indies, Turkey, Algeria, and Argentina. In addition some European countries produced considerable amounts, for example, Russia and Austria Hungary.

During the period from 1900 to 1913, however, none of these countries increased their production significantly nor were new sources developed, as was the case in many food products. Consequently, the United States was not displaced in the European tobacco market. During the period from 1900–1904 the United Kingdom obtained 89.9 per cent of her tobacco from the United States as compared with 88.5 per cent in 1909–1913. Imports from other sources had increased, it is true, with the increase of total imports. This was particularly true of imports from Turkey, the Netherlands, and the Nyasaland Protectorate. The imports from the Netherlands were largely of tobacco grown in the Dutch East Indies.

In France there was no great growth of tobacco imports from 1900–1913, nor was there a marked growth in the imports from any other country, the United States maintaining her position as the largest exporter, though in the years when total imports were lower than usual the reduction in imports was usually from the United States.

To sum up the export trade of the United States from 1900 to 1913, we may say that of the principal commodities, cotton and tobacco maintained their position and indeed grew slightly; food products, on the other hand, declined.

In instances where the United States remained the only important source of a given product, such as was true of lard and ham, our decline in exports was comparatively slight, whereas when other supplies were developed to which Europe could turn, our

exports fell off rapidly as these other countries came into the European market. This was particularly true of wheat, fresh beef, oleo oil, and bacon. America's exports were declining because we were consuming more foodstuffs, and Europe's demand was being supplied by other countries at prices which were so low that we could not afford to increase our production in order to maintain our position in the European market.

APPENDIX C*

AGRICULTURAL IMPORTS INTO THE UNITED STATES, 1870–1914

It is but natural that most people should think of the United States as a great exporter of agricultural products and should dismiss agricultural imports as of negligible importance. On the other hand, we have recently had some rather sensational statements to the effect that to-day our agricultural imports exceed in value our agricultural exports. Both these views of the matter, however, will bear further examination.

As a matter of fact imports of certain agricultural commodities have come to us in significant amount for a long time, and some such imports have tended to increase markedly in recent years. The increasing agitation for agricultural tariffs reflects the growing competition in certain of these lines. Imports of farm products are of considerable significance in a study of American exports, there being important interrelations between our agricultural imports and the extent to which agriculture in this country has depended upon Europe as a foreign market. Without the possibility of importing certain commodities such as sugar, hides, and wool

* All data presented in this Appendix are for fiscal years.

it is very likely that we should have produced much more of these commodities in this country and that we should not then have had so large a surplus of other products to export. On the other hand, had our foreign market been less favorable it might have been more profitable for us to have produced less of those products which we exported and more of those which we imported. During the period from the Civil War to the Great War some striking changes took place in our adjustment to these problems of farm production and international trade.

I. EXPANSION OF THE IMPORT TRADE

The course of our agricultural imports from 1870 to 1914 is shown in figure 47 (p. 314,) which presents also a graph of agricultural exports so that comparison both of amount and trend may be made. It will be observed that, with comparatively minor reactions, the course of agricultural imports has been steadily and rather rapidly upward. The practically stationary situation during the eighties and the decline noticeable during the early nineties are to be explained in part by the downward course of the price level as well as by the economic depression of the later period. The sharp dip in 1898 was due largely to pronounced weakness of coffee prices and decline in wool and sugar imports after the tariff of 1897 became operative.

A striking feature of the two graphs is the steady and even accelerated rate of growth in imports from about 1900 on, as contrasted with the stagnation of

the export trade. As we have seen elsewhere, such growth of value as did take place in exports was due to the rising level of prices, physical quantities actually having declined in the period between 1900 and 1914. Physical quantities of our important agricultural imports, on the other hand, increased strikingly in this period. During most of the time

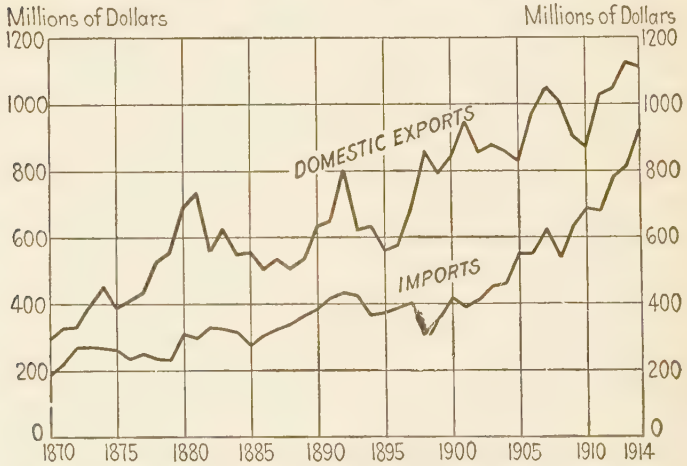

FIGURE 47.—VALUE OF THE AGRICULTURAL EXPORTS AND IMPORTS OF THE UNITED STATES, 1870–1914.

between 1870 and 1900 agricultural imports had amounted to about one-half the value of agricultural exports. In the five-year period, 1897–1901, the value of agricultural imports averaged 45.5 per cent of that of agricultural exports, but in the year ending June 30, 1914, they amounted to 83 per cent of the value of agricultural exports.

II. COMPETITIVE AND NONCOMPETITIVE GROUPS

In considering these figures for agricultural imports one should constantly bear in mind the fact that they fall under several different classifications. First, there are imports of commodities identical with those produced in the United States, which simply cross the boundary line from Canada or to a less extent Mexico, or which move to our ports from European, South American, or other producing regions. These would include cereals, live stock, hides, butter, eggs, and some fruits and vegetables. A second class consists of products originally not produced in the United States, but for whose production we have suitable resources, in whose production we have in some instances made a beginning, and in which we might find it advantageous to expand our operations. These would also shade off into products which were relatively easy of substitution for commodities raised in large quantities in the United States. In this general group we might include nuts, foreign-type cheeses, olives, olive oil, other vegetable oils, certain types of tobacco, and numerous others. A third class consists of products obtained from the soil but which, either because of their tropical character or for other reasons, are noncompetitive or only slightly competitive with the agricultural products of the United States. Here we have coffee, silk, tea, spices, and opium, this class shading off gradually into our second class through cane sugar, long-staple cotton, certain types of wool, tobacco, vegetable fibers, and the like.

For the sake of bringing out the relative importance of certain of these classes of imports, the following table presents figures for the total value of agricultural imports and the value of several of the most important noncompetitive groups. The vegetable-fiber group included in this table is made up in part of sisal grass, manila, jute, and Tampico fiber, which are distinctly not competitive; but it includes also hemp, flax, and cotton, which are to a certain extent competitors of similar products raised in this country. The cotton item has ranged from about one-third to one-fourth of the total

COMPARATIVE VALUE OF TOTAL AGRICULTURAL IMPORTS AND CERTAIN COMPONENT GROUPS, BY FIVE-YEAR INTERVALS, 1870–1914

(000 omited)

Year	Total	Coffee, tea, etc.[a]	Silk	Indigo, opium, and spices	Vegetable fiber
1870	$191,559	$38,516	$ 3,018	$4,494	$6,393
1875	261,619	74,060	4,918	4,973	6,781
1880	314,617	81,655	13,273	7,968	10,123
1885	277,340	62,398	12,886	5,528	13,689
1890	384,100	93,662	24,326	6,235	21,934
1895	373,116	113,435	22,626	5,387	17,996
1900	420,139	69,317	45,330	5,972	34,335
1905	553,851	110,466	61,040	6,620	47,533
1910	687,509	94,924	67,130	6,302	48,235
1914	924,247	149,034	100,930	8,499	73,807

[a] Including chocolate, cocoa, and coffee substitutes.

value of this group and, while it represents types of cotton which do not compete directly with the bulk of our crop, they are long-staple varieties such as are raised in the most favored sections of our South and whose production is being promoted in the irrigated regions of the Southwest.

Among the items of agricultural import which competed more directly with home producers, animal products were from 1905 forward clearly the most important group, sugar and molasses having led throughout the earlier years. Tobacco, which is included in the table below for reasons of convenience, should properly go in an intermediate group made up of commodities whose competition is mostly indirect in character. The import types of tobacco are in the main desired because of peculiar qualities not found in the home product. Even so, however, Sumatra wrapper, Havana filler, and Turkish cigaret leaf go to satisfy a demand which otherwise would absorb more of the product of Connecticut, Carolina, and Wisconsin. These competing groups are shown in the table on page 318.

Looking now at certain individual commodities we see that sugar has generally held first place in our imports, with hides and skins generally third, up to the end of the nineteenth century. From 1900 on, sugar, coffee, and hides and skins contended vigorously for first place. From 1902 to 1914, inclusive, sugar averaged 14.7 per cent of total agricultural imports, coffee 13.5 per cent, and the hides group 12.9 per cent. However, hides and skins occupied first place in 1910 and 1914.

Of individual commodities which we imported, sugar was, as already mentioned, the most important, and the volume of imports increased markedly during the period. Imports of sugar (not including molasses) in 1870 were 1.2 billion pounds. From this point they mounted rapidly, reaching 4.9 billion pounds in 1897, an exceptionally large amount, which was not exceeded until 1914, when 5.1 billion pounds were imported.

Olive oil imports increased very rapidly, particularly after 1900. In 1870 they amounted to only a quarter of a million gallons and by 1900 had not quite reached 1 million gallons. In 1910 there were 3.7 million gallons imported and in 1914 6.2 million. These olive oil imports were competitive, not only with the American olive industry but also with the cotton industry, because cottonseed oil may be used for much the same purposes as olive oil. This is true also of corn oil.

Wool imports fluctuated greatly, the largest imports for any one year being those of 1897, when over 350 million pounds were imported. However, the trend of wool imports continued upward throughout the entire period from the low point of around 50 million pounds in the seventies to nearly 250 million pounds in 1914.

The quantities of cheese imports from 1870 to 1883 are not available, but in 1884 they amounted to 6.2 million pounds. They were practically stationary until 1887, after which they began to rise rapidly, reaching 13.5 million pounds in 1900 and 63.8 million pounds in 1914. The butter situation affords

an interesting contrast to cheese. The United States imported over 6 million pounds of butter in 1868. With the subsequent development of our domestic dairy industry, butter imports dwindled to a low point of 23 thousand pounds in 1899. The increase after that period, however, was fairly rapid and in 1914 we brought in 7.8 million pounds. It may be added that we imported nearly 24 million pounds of butter in 1923.

Imports of eggs also show some rather interesting features. The United States brought in 5 or 6 million dozen eggs each year during the seventies and raised this figure to 16.5 million in 1884. After 1890 egg imports fell off rapidly to a low point of 126 thousand dozen in 1901. Thereafter they increased slowly until 1910 and then rapidly to over 6 million dozen in 1914.

Wheat imports, while being for the most part directly competitive with American agriculture, were never of any very great importance as compared with either our wheat crop or wheat exports. The imports fluctuated very widely from almost nothing up to the high point of 3.4 million bushels in 1912.[1] Corn imports were negligible in all but two years until near the close of the period. In 1914, however we imported 12.4 million bushels of corn and 22.3 million bushels of oats, as against 2.4 million of wheat.

Our tobacco imports grew rapidly and were in some respects competitive with the American tobacco industry. In 1870 tobacco imports were

[1] This includes wheat flour in terms of bushels of wheat.

only slightly in excess of 6 million pounds but reached nearly 33 million pounds in 1896. After dropping to 10 million pounds in 1898 they again began to increase, this time rather steadily, rising to 68 million pounds in 1913.

The situation from 1870 to 1900, then, was that our import trade in agricultural products grew along with, though not as rapidly as, our export trade, exports being about twice as large as imports. Our balance of agricultural exports was becoming increasingly large, reaching its peak in 1901, when the value of agricultural exports exceeded that of imports by 571 million dollars.

After the beginning of the century, however, the situation changed. Agricultural exports began to decline, while imports continued their rise. The excess of agricultural exports over imports declined rapidly to 207 million dollars in 1914, having reached a low of 198 million in 1910. Our surplus of agricultural production over our consumption of agricultural products was rapidly becoming smaller. We were definitely approaching a more nearly balanced adjustment between agricultural and non-agricultural production.

APPENDIX D

GERMANY'S FOREIGN ASSETS[1]

The Committee of Experts appointed by the Reparation Commission to investigate Germany's foreign assets, in its report of April 5, 1924, discusses both the question of the amount of these assets and the German income from them.

1. *Amount and Character of the Assets.*—The committee states that "German capital abroad, of every kind, including capital in varying degrees of liquidity and capital invested in the participation of foreign companies and firms, after taking account of all credit and debit items, was at the end of 1923 not less than 5.7 billion gold marks and not more than 7.8 billions, and we think that the middle figure of 6.75 billion gold marks is the approximate total." The report does not show how much of this was represented by bank balances and how much by less liquid assets, but does give detailed figures from which such a classification may be made.

The committee estimates that the deficit of 15.2 billion gold marks in the German trade balance for

[1] For comparison with earlier estimates, see discussion in Moulton, H. G., and McGuire, C. E., Germany's Capacity to Pay, pp. 49 and 80–95.

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war years was in part met by the following receipts (estimated in gold marks): Gold exports, 1 billion; sale of foreign securities, 1 billion; sale of domestic securities, 1 billion; sale of paper marks and levies on people of the occupied territories, 5.7 to 6 billions. The resources used in meeting the rest of this deficit are not itemized. The conclusion seems to be that it was met with difficulty, and that there was no remaining surplus to be converted into foreign assets.

The committee estimates that for the post-war period the German deficit resulting from trading operations and treaty payments was 9 to 10 billion gold marks. As an offset to this, it estimates that Germany received income (in billions of gold marks) as follows:

Sale of paper marks and mark credits	7.6 to 8.7
Sale of gold	1.5
Sale of domestic securities and real estate[1]	1.5
Total	10.6 to 11.7

The report gives no definite estimate concerning the other invisible items. If we estimate these at 2 billion gold marks, the total becomes 12.6 to 13.7 billion gold marks. Germany's net international income for the five years 1919–1923 would thus come to about 3.5 billion gold marks. Not all of this has been kept in the form of foreign bank balances, however, for according to the report 1.2 billion gold

[1] Assuming that none of these were bought with paper marks or mark balances belonging to foreigners.

marks of it are in the form of foreign currency now held in Germany. This would leave only 2.3 (or, say, 2.5) billions for deposit abroad. The other 4.25 billions of the estimated total of 6.75 billions represent remnants of pre-war foreign investments and German-owned property in ceded areas.

2. *Germany's Income from These Assets.*—As an offset against Germany's foreign assets of 6.75 billions, the report estimates foreign holdings of German securities and real estate at 1.5 billions. The conclusion is, therefore, arrived at that Germany has had since the war a small net income from her foreign assets.

The statements made in the several paragraphs that deal with foreign investments in Germany seem to be in disagreement and lead one to question whether the total of these should not be somewhat more than 1.5 billions. The report estimates that Germany realized about 1 billion gold marks during the war from the sale of domestic securities, and that since the war 1.5 billions of the deficit in her trade accounts was met by the sale of domestic securities and real estate. In addition to this, allowance should be made for the fact that some purchases of such property were, undoubtedly, made with paper marks and mark credits held by foreigners. Remnants of pre-war foreign investments in Germany, if any remain, should also be included in a valuation of foreign holdings in Germany.

With regard to the sale of domestic securities during the war the report states that:

Sale of gold and securities was the principal means whereby Germany paid for her imports during the war. As regards the German securities, widely divergent estimates have been made of the amounts sold. In our opinion the total figure is not far from 1 billion gold marks.

With regard to the post-war period the statement is as follows:

During the period characterized by the rapid depreciation of the mark, sales of real property to foreigners reached an unwonted development in Germany. In estimating the proceeds of such sales the committee had before it various statistics indicating in detail the number and amounts of sales of real property to foreigners since the war in some of the principal towns of Germany and also in districts of varying economic character.

As regards securities, Germany was able during the first of the post-war period to market some of her securities abroad, but as soon as her financial position became more uncertain most of these transactions were suspended. In the aggregate, the committee considers that the result of sales of German real property and securities to foreigners amounted to about 1.5 billions of gold marks.

In coming to conclusions with regard to the interest item in the German balance of payments the report includes, among Germany's present foreign assets, German property in the ceded areas and the remnants of Germany's pre-war foreign investments. With regard to these pre-war investments the committee states that "the figure of 28 billion gold marks may be accepted as representing the value of German assets abroad at the time of the declaration of war." It should be noted that this is the *total* of Germany's

pre-war investments abroad. In the pre-war balance of payments, interest on this 28 billions was offset by interest payments on German securities held by foreigners. According to the generally accepted estimates, these pre-war foreign investments amounted to about 5 billion gold marks.[1]

The statement concerning German property in the ceded territories is as follows:

> German private property in the ceded territories of Silesia, Posen, Danzig, etc., are included in our estimate in so far as, according to the definition adopted by the committee, they are owned by Germans residing in Germany. Although it is very difficult to determine with any precision the extent of these properties the committee considered it could not exclude from its valuation certain industrial assets, particularly those in Upper Silesia.

When full allowance is made for all the factors bearing on the question of Germany's foreign assets, the conclusion necessarily follows that the net income—if, indeed, there is any net income—received by Germany from this source is very small. The committee's summarization of the question for the five post-war years is as follows:

> The assets held abroad by Germany since the war represent, indeed, only a small, and for some part unproductive, fraction of the pre-war holdings. It is true, on the other hand, that the payments which Germany has made since 1919 in respect to German securities held by foreigners

[1] The net amount of Germany's foreign assets, on this basis, is therefore 23 billion gold marks. In Germany's Capacity to Pay, an estimate of 20 billions was used.

have been inconsiderable. After a careful study of the question the committee came to the conclusion that a set-off of the two items, income from German investments abroad and income from foreign investments in Germany, resulted in a small balance in Germany's favor for the whole post-war period.

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